



DEPARTMENT OF ENVIRONMENTAL QUALITY

KATHLEEN BABINEAUX BLANCO

GOVERNOR

MIKE D. McDANIEL, Ph.D.

SECRETARY

Certified Mail No.

Activity No.: PER19960020

Agency Interest No. 2083

Sarah B. Thigpen
Responsible Care Leader
Union Carbide Corporation
PO Box 50
Hahnville, LA 700570050

RE: Part 70 Operating Permit, Union Carbide Corp - St Charles Operations Unit 8 (EXP), Taft, St. Charles Parish, Louisiana

Dear Ms Thigpen:

This is to inform you that the initial Title V permit for the above referenced facility has been approved under LAC 33:III.501. The permit is both a state preconstruction and Part 70 Operating Permit. The submittal was approved on the basis of the emissions reported and the approval in no way guarantees the design scheme presented will be capable of controlling the emissions as to the types and quantities stated. A new application must be submitted if the reported emissions are exceeded after operations begin. The synopsis, data sheets and conditions are attached herewith.

It will be considered a violation of the permit if all proposed control measures and/or equipment are not installed and properly operated and maintained as specified in the application.

Operation of this facility is hereby authorized under the terms and conditions of this permit. This authorization shall expire at midnight on the _____ of _____, 2011, unless a timely and complete renewal application has been submitted six months prior to expiration. Terms and conditions of this permit shall remain in effect until such time as the permitting authority takes final action on the application for permit renewal. The permit number and agency interest number cited above should be referenced in future correspondence regarding this facility.

Done this _____ day of _____, 2006.

Permit No.: 2446-V0

Sincerely,

Mike D. McDaniel, Ph.D.

Assistant Secretary

CCB:fjh

cc: EPA Region VI

ENVIRONMENTAL SERVICES

: PO BOX 4313, BATON ROUGE, LA 70821-4313

P:225-219-3181 F:225-219-3309

WWW.DEQ.LOUISIANA.GOV

PUBLIC NOTICE
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY (LDEQ)
UNION CARBIDE CORPORATION - TAFT STAR PLANT
UNIT 8 (EXP)
PROPOSED INITIAL PART 70 AIR OPERATING PERMIT

The LDEQ, Office of Environmental Services, is accepting written comments on an initial Part 70 air operating permit for Union Carbide Corporation (UCC), P.O. Box 50, Hahnville, LA 70057 for the Unit 8 (EXP) process in the Taft Star Plant. **The facility is located at 355 Hwy 3142 - Gate 28, Taft, St. Charles Parish.**

Union Carbide Corporation is a wholly owned subsidiary of the Dow Chemical Company. The Taft/Star Plant is an existing synthetic organic chemical manufacturing industry facility. The Unit 8 (EXP) currently operates under state Permit No. 2446, issued December 5, 1996. UCC has requested incorporation of the following updated information into the initial Part 70 air operating permit.

1. Speciation of TAPs.
2. Update emission estimates for tanks, fugitives, flares, loading, unloading, sparging, heating, and scrubber emissions.
3. Incorporation of emissions associated with the Small Source Exemption granted June 11, 1999, for the jet system.
4. Incorporation of a Storage Bin CAP (Bin Vent CAP) for the four new storage bins added to the State Permit via an administrative change requested on September 16, 1998.
5. Incorporation of the new baghouse associated with the Authorization-to-Construct and approval to operate on March 4, 1999.
6. Incorporation of revised fugitive emission component counts.
7. Incorporation of the emission changes associated with the SPOGONA Project as listed in the Case-by-Case Insignificant Activity request.
8. Incorporate corrections to tank heights and associated capacity changes.
9. The addition of glycol ethers (II-S) service for storage tank C-521.
10. The addition of an Octyl Phenol and Nonyl Phenol Unloading CAP.
11. Increase the throughput for the the following tanks: C-509, C-807, C-901, and C-904.
12. Addition of Mobile Drumming Operations.
13. Remove tank C-807 from PEG service.
14. Remove Tanks C-403, C-509, and C-517 from the Emission Point list and add them to the Insignificant Activities list.
15. Delete the following sources: Drum Unloading, Spray Congealer Feed Line Vent, and the Degasser Pot .

Estimated emissions in tons per year are as follows:

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>
PM ₁₀	0.27	1.61	+ 1.34
SO ₂	0.05	0.05	-
NO _x	5.59	5.59	-
CO	30.40	30.40	-
VOC ¹	6.0	25.38	+ 19.38

¹VOC speciation in tons per year.

LAC 33:III Toxic Air Pollutants (TAP's)	Before	After	Change
Acetaldehyde	-	0.06	+ 0.06
Diethylene ether (1,4-Dioxane)	<0.01	<0.01	-
Ethylene Glycol	0.003	0.09	+0.087
Ethylene Oxide	0.22	1.12	+0.90
Formaldehyde	-	0.02	+0.02
Glycol Ethers (II-S)	0.44	4.03	+3.59
Total TAP's	0.66	5.32	+4.66

Written comments, written requests for a public hearing, or written requests for notification of the final decision regarding this permit action may be submitted to Ms. Soumaya Ghosn at LDEQ, Public Participation Group, P.O. Box 4313, Baton Rouge, LA 70821-4313. **Written comments and/or written requests must be received by 12:30 p.m., Thursday, April 20, 2006.** Written comments will be considered prior to a final permit decision.

If LDEQ finds a significant degree of public interest, a public hearing will be held. LDEQ will send notification of the final permit decision to the applicant and to each person who has submitted written comments or a written request for notification of the final decision.

The initial part 70 air operating permit application, proposed permit and statement of basis are available for review at the LDEQ, Public Records Center, Room 127, 602 North 5th Street, Baton Rouge, LA. Viewing hours are from 8:00 a.m. to 4:30 p.m., Monday through Friday (except holidays). An additional copy may be reviewed at the St. Charles Parish Public Library, East Regional Branch, 100 River Oaks Drive, Destrehan, LA 70047.

Inquiries or requests for additional information regarding this permit action should be directed to Fritz J. Hurst, LDEQ, Air Permits Division, P.O. Box 4313, Baton Rouge, LA 70821-4313, phone (225) 219-3128.

Persons wishing to be included on the LDEQ permit public notice mailing list or for other public participation related questions should contact the Public Participation Group in writing at LDEQ, P.O. Box 4313, Baton Rouge, LA 70821-4313, by email at maillistrequest@ldeq.org or contact the LDEQ Customer Service Center at (225) 219-LDEQ (219-5337).

Permit public notices including electronic access to the proposed permit and statement of basis can be viewed at the LDEQ permits public notice webpage at www.deq.state.la.us/news/PubNotice/ and general information related to the public participation in permitting activities can be viewed at www.deq.louisiana.gov/portal/tabcid/2198/Default.aspx.

Alternatively, individuals may elect to receive the permit public notices via email by subscribing to the LDEQ permits public notice List Server at http://www.state.la.us/ldbc/listservpage/ldeq_pn_listserv.htm.

All correspondence should specify AI Number AI2083, Permit Number 2446-V0, and Activity Number PER19960020.

AIR PERMIT BRIEFING SHEET
AIR PERMITS DIVISION
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Union Carbide Corp - St Charles Operations
Agency Interest No.: 2083
Unit 8 (EXP)
Taft, St. Charles Parish, Louisiana

I. Background

Union Carbide Corp (UCC) - St Charles Operations (Taft/Star), a subsidiary of The Dow Chemical Company is an existing chemical manufacturing (SOCMI) facility that has been in operation over 40 years. The Union Carbide Corp - St Charles Operations, Unit 8, currently operates under state Permit No. 2446, issued December 5, 1996. UCC has many process units at its Taft/Star Manufacturing Complex; therefore, Title V permit applications were submitted on a unit (or other appropriate operational division) basis to promote simplicity and efficiency.

This is the Part 70 operating permit (Initial Title V) for Unit 8 (EXP) at the facility and is associated only with sources at that unit.

II. Origin

An initial permit application and Emission Inventory Questionnaire for Unit 8 were submitted by Union Carbide Corp on October 12, 1996, requesting a Part 70 operating permit. Subsequent revisions and updates were received on April 17, 2000, September 4, 2002, and July 18, 2005. Additional information dated October 24, 2005, was also received.

III. Description

Unit 8 was originally permitted for construction in 1996. The facility is an alkoxylates production unit that was designed to produce surfactants, amine ethoxylates, and polyethylene glycols (PEG). There are two primary products generated in the unit—surfactants and polyethylene glycol. The primary feedstocks are alcohol ethoxylates, ethylene oxide (from the UCC Ethylene Oxide Units), and diethylene glycol. These raw materials are fed to reactors to produce various products which are then packaged or shipped off-site via railcar, tank truck, box truck, or drums.

Surfactants

The Ethoxylates Park Surfactant Reactors are utilized for the production of surfactants. The reaction process begins by loading the desired amount of starter (alcohol ethoxylates) to the reactor. A base material is then added to the reactor as a catalyst for the reaction. Nitrogen sparging is done to reduce the water content of the starter material. Ethylene Oxide (EO) is fed to the reactor and the reaction begins. Once the reaction has been completed, it is neutralized with acid to ensure the reaction has stopped and to stabilize the product. The end product is then transferred to a rail car.

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Several of the higher molecular weight surfactants are sold as "aqueous" blends ("aqueous" is defined as having added water to prevent freezing) due to the freezing potential of the neat surfactant.

Hydroxy Ethyl Piperazine (HEP) production is similar in the charge and discharge and Ethylene Oxide (EO) feed phase, but no catalyst or neutralizing acid is used since it is a water catalyzed reaction. Water is included in the Piperazine raw material that is supplied on site.

Polyethylene Glycol

The Polyethylene Glycol (PEG) reaction system is utilized for the production of high and low molecular weight PEGs. The reaction process begins by feeding diethylene glycol to the reactor. Caustic is added to provide a catalyst for the reaction. Water is removed from the system by nitrogen sparging. Ethylene oxide is then fed to the reactor. This reaction will yield either a PEG starter material or a low molecular weight product. The low molecular weight product is neutralized in the reactor.

PEG starter is used to produce the neat higher molecular weight PEG products. These products are either aqueous blends or solid materials. PEG starter can be further catalyzed, reacted with ethylene oxide, and neutralized.

MPEGS are the product of a reaction similar to the PEG reaction with the exception that MPEGS are a product of reacting Methyl CARBITOL® and ethylene oxide.

Various upgrades and additions have been made to the unit over the years. These include:

- A vacuum jet system used at the surfactant reactors;
- A new baghouse project; and
- The SPOGONA project.

Based on the information provided in the most recent revised application, the initial Title V permit will incorporate and define emission points designated in the existing state permit and additional emission points that have been permitted since 1996 through Small Source Exemptions, Authorizations to Construct, and etc. This permit includes the following updated information:

- Speciation of TAPs;
- Updates to emission estimates for tanks, fugitives, flares, loading, unloading, sparging, heating, and scrubber emissions;
- Incorporation of emissions associated with the Small Source Exemption granted June 11, 1999, for the jet system;

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Taft, St. Charles Parish, Louisiana

- Incorporation of a Storage Bin CAP (Bin Vent CAP) for the four new storage bins (EQT 509, EQT 510, EQT 511, and EQT 512) that were added to the State Permit via an administrative change (requested September 16, 1998);
- Incorporation of the new baghouse associated with the Authorization-to-Construct and Approval to Operate on March 4, 1999;
- Incorporation of revised fugitive emission component counts;
- Incorporation of the emission changes associated with the SPOGONA Project as listed in the Case-by-Case Insignificant Activity request;
- Tank capacity changes resulting from a correction in tank heights (note: no new state or federal regulations were triggered due to the capacity changes);
- Addition of glycol ethers (II-S) service for storage tank C-521, EQT 485 (tank will have the flexibility to store polyethylene glycol and glycol ethers);
- Addition of an Octyl Phenol and Nonyl Phenol Unloading CAP (GRP 97);
- Throughput increase for Acetic Acid Tank C-509 (EQT 520) per Administrative Amendment dated September 27, 2004;
- Throughput change for the following tanks:
 1. Tank C-509 (EQT 520) – change from 304,000 lbs/yr to 500,000 lbs/yr
 2. Tank C-807 (EQT 489) – change from 25,139,000 lb/yr to 40,000,000 lbs/yr
 3. Tank C-901 (EQT 490) – change from 10,015,000 lb/yr to 40,000,000 lbs/yr
 4. Tank C-904 (EQT 491) – change from 39,999,999 lb/yr to 40,000,000 lbs/yr
- Addition of Mobile Drumming Operations, EQT 521;
- Removal of PEG service from tank C-807 (Emission Point 3914);
- Removal of Tanks C-403 (Emission Point 3905), C-509 (Emission Point 3906), and C-517 (Emission Point 3909) from the Emission Point list. These tanks are considered to be Insignificant Activities;
- Deletion of the following sources: Drum Unloading (Emission Point 3919), Spray Congealer Feed Line Vent (Emission Point 3937), and Degasser Pot (Emission Point 3939).

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Unit 8 (EXP)
Taft, St. Charles Parish, Louisiana

Estimated emissions in tons per year are as follows:

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>
PM ₁₀	0.27	1.61	+1.34
SO ₂	0.05	0.05	-
NO _X	5.59	5.59	-
CO	30.40	30.40	-
VOC *	6.0	25.38	+19.38

*VOC LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):

Pollutant	Before	After	Change
Acetaldehyde	-	0.06	+0.06
Diethylene ether (1,4-Dioxane)	<0.01	<0.01	-
Ethylene Glycol	0.003	0.09	+0.087
Ethylene Oxide	0.22	1.12	+0.90
Formaldehyde	-	0.02	+0.02
Glycol Ethers (II-S)	0.44	4.03	+3.59
Total	0.66	5.32	+4.66

Other VOC (TPY): 20.07

IV. Type of Review

This permit was reviewed for compliance with 40 CFR 70, the Louisiana Air Quality Regulations, New Source Performance Standards (NSPS), and National Emission Standards for Hazardous Air Pollutants (NESHAP). Prevention of Significant Deterioration (PSD) does not apply.

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Union Carbide Corp - St Charles Operations
Agency Interest No.: 2083
Unit 8 (EXP)
Taft, St. Charles Parish, Louisiana

The UCC St. Charles Opertions is a major source of toxic air pollutants (TAPs) pursuant to LAC 33:III.Chapter 51. TAPs emitted from sources in Unit 8 include ethylene oxide and formaldehyde (Class I), and 1,4-dioxane and acetaldehyde (Class II), and ethylene glycol (Class III), and glycol ethers (Supplemental List)

V. Credible Evidence

Notwithstanding any other provisions of any applicable rule or regulation or requirement of this permit that state specific methods that may be used to assess compliance with applicable requirements, pursuant to 40 CFR Part 70 and EPA's Credible Evidence Rule, 62 Fed. Reg. 8314 (Feb. 24, 1997), any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed shall be considered for purposes of Title V compliance certifications. Furthermore, for purposes of establishing whether or not a person has violated or is in violation of any emissions limitation or standard or permit condition, nothing in this permit shall preclude the use, including the exclusive use, by any person of any such credible evidence or information.

VI. Public Notice

A notice requesting public comment on the permit was published in *The Advocate*, Baton Rouge, on <date>, 2006; and in the *St. Charles Herald-Guide*, Boutte, on <date>, 2006. A copy of the public notice was mailed to concerned citizens listed in the Office of Environmental Services Public Notice Mailing List on <date>. The draft permit was also submitted to US EPA Region VI on <date>. All comments will be considered prior to the final permit decision.

VII. Effects on Ambient Air

Dispersion Model Used: None

Pollutant	Time Period	Calculated Maximum Ground Level Concentration	Louisiana Toxic Air Pollutant Ambient Air Quality Standard or (National Ambient Air Quality Standard {NAAQS})
N/A			

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Union Carbide Corp - St Charles Operations
Agency Interest No.: 2083
Unit 8 (EXP)
Taft, St. Charles Parish, Louisiana

VIII. General Condition XVII Activities

Work Activity	Schedule	Emission Rates - tons			
		PM ₁₀	SO ₂	NO _X	CO
Flare Maintenance		0.77		0.003	0.02
Sampling Activities	4056 samples/yr				0.01
Vacuum Truck Operations	24 hours/yr			<0.001	*
C-HEP & Surfactant Rail Car Washing	600 rail cars washed per year				0.04*
Sparging Operations	30 batches/yr				0.14*
Baghouse Maintenance (Solids Filling Station)	30 super sacks per quarter at 1800 lb/sack	0.01			
Baghouse Maintenance (Solids Filling Station #2)	30 super sacks per quarter at 1800 lb/sack	0.01			
Packaging & Drumming Operations Maintenance	10 drums/month at 250 lb each	0.0014			

***General Condition XVII VOC Speciation**

Work Activity Schedule	Emission Rates - tons						
	Acet-aldehyde	1,4--Dioxane	Ethylene Glycol	Ethylene Oxide	Form-aldehyde	Glycol	Ethers
C-HEP & Surfactant Rail Car Washing	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Sparging Operations	0.017	0.004	0.017	0.017	0.017	0.034	
Vacuum Truck Activities	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

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IX. Insignificant Activities

ID No.:	Description	Citation
-	Propionic Acid Tote (500 gallons)	Insignificant Activity per LAC 33:III.501.B.5.A.2.
C-403	Ethylene Glycol tank (2,979 gallons)	Insignificant Activity per LAC 33:III.501.B.5.A.3.
C-509	Acetic Acid Tank (7,082 gallons)	Insignificant Activity per LAC 33:III.501.B.5.A.3.
C-517	Precoat Tank (955 gallons)	Insignificant Activity per LAC 33:III.501.B.5.A.3.
C-505	Potassium Hydroxide Tank (45%) (6,190 gallons)	Insignificant Activity per LAC 33:III.501.B.5.A.5.
C-507	Phosphoric Acid Tank (75%) (6,190 gallons)	Insignificant Activity per LAC 33:III.501.B.5.A.5.
C-561	Sodium Hydroxide (50%) (6,190 gallons)	Insignificant Activity per LAC 33:III.501.B.5.A.5.
-	Lab Vent Emissions	Insignificant Activity per LAC 33:III.501.B.5.A.7.

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Union Carbide Corp - St Charles Operations
Agency Interest No.: 2083
Unit 8 (EXP)
Taft, St. Charles Parish, Louisiana

X. Table 1. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	LAC 33:III. Chapter																	
		5*	9	11	13	15	2103	2107	2111	2113	2115	2121	2122	22	29*	51*	53	56	59
GRP 96	Unit 8 (EXP)		1	1	1	1								1			1	1	1
FUG 10	Fugitives (196Q)													1		1	3		1
EQT 478	Flare (3900)													1					1
EQT 479	Reactor C-1101 (3902)													1					
EQT 480	Reactor C-1201 (3903)													1					
EQT 481	Reactor C-1301 (3904)													1					
EQT 483	Tank C-511 (3907)													3					1
EQT 484	Tank C-514 (3908)													3					1
EQT 485	Tank C-521 (3910)													3					1
EQT 486	Tank C-527 (3911)													3					1
EQT 487	Tank C-536 (3912)													3					1
EQT 488	Tank C-539 (3913)													3					1
EQT 489	Tank C-807 (3914)													3					3
EQT 490	Tank C-901 (3915)													3					1
EQT 491	Tank C-904 (3916)													3					1
EQT 492	Tank C-907 (3917)													3					1

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Unit 8 (EXP)
Taft, St. Charles Parish, Louisiana

X. Table 1. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	LAC 33:III.Chapter																
		5*	9	11	13	15	2103	2107	2111	2113	2115	2121	2122	22	29*	51*	53	56
EQT 493	Packaging and Drumming Operations (3918)				1													
GRP 97	Octyl Phenol and Nonyl Phenol Unloading CAP (3920)																	3
EQT 494	Nonyl Phenol Unloading Spot (53-1)(3920a)																	3
EQT 495	Nonyl Phenol Unloading Spot (53-2)(3920b)																	3
EQT 496	Nonyl Phenol Unloading Spot (54-1)(3920c)																	3
EQT 497	Nonyl Phenol Unloading Spot (54-2)(3920d)																	3
EQT 498	Octyl Phenol Unloading Spot (50-1) (3920e)																	3
EQT 499	Octyl Phenol Unloading Spot (50-2) (3920f)																	3
EQT 500	Nonyl Phenol Degasser Pot 1 (3920g)																	3
EQT 501	Nonyl Phenol Degasser Pot 2 (3920h)																	3
EQT 502	Octyl Phenol Degasser Pot (3920i)																	3
EQT 503	Octyl Phenol and Nonyl Phenol Rail Car Sparging (3920j)																	3
EQT 504	Loading Operations #1 (Railcars) (3921)																	1
EQT 505	Unloading Operations #2 (Tank Trucks) (3922)																	1
EQT 506	Loading Operations #2 (3923)																	1

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X. Table 1. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	LAC 33:III.Chapter																
		5*	9	11	13	15	2103	2107	2111	2113	2115	2121	2122	22	29*	51*	53	56
EQT 507	Wastewater Secondary Emissions (3924)																	
EQT 508	Piperazine Scrubber (3925)																	
GRP 98	Product Storage Bin CAP (D-413, 414, 415, 416) (Bin Vent CAP)																	
EQT 509	Product Storage Bin (D-413) (3926)																	
EQT 510	Product Storage Bin (D-414) (3927)																	
EQT 511	Product Storage Bin (D-415) (3928)																	
EQT 512	Product Storage Bin (D-416) (3929)																	
EQT 513	Solid Filling Station (3930)																	
EQT 514	Hot Well/Decanter Common Vent (3931)																	
EQT 515	Jet System 1 (3932)																	
EQT 516	Jet System 2 (3933)																	
EQT 517	Decanter Unloading (3934)																	
EQT 518	Solid Filling Station #2 (3935)																	
EQT 519	Conegaler Vent (3936)																	
EQT 520	Acetic Acid Scrubber (Tank 3906 emissions) (3938)																	
EQT 521	Mobile Drumming Operations (3940)																	
EQT 522	Unit Knock Out Pot (3941)																	

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X. Table 1. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	LAC 33:III.Chapter																
		5*	9	11	13	15	2103	2107	2111	2113	2115	2121	2122	22	29*	51*	53	56
EQT 523	Flare Knock Out Pot (3942)															1		

* The regulations indicated above are State Only regulations.

▲ All LAC 33:III Chapter 5 citations are federally enforceable including LAC 33:III.501.C.6 citations, except when the requirement found in the "Specific Requirements" report specifically states that the regulation is State Only.

KEY TO MATRIX

- 1 -The regulations have applicable requirements that apply to this particular emission source.
-The emission source may have an exemption from control stated in the regulation. The emission source may not have to be controlled but may have monitoring, recordkeeping, or reporting requirements.
- 2 -The regulations have applicable requirements that apply to this particular emission source but the source is currently exempt from these requirements due to meeting a specific criterion, such as it has not been constructed, modified or reconstructed since the regulations have been in place. If the specific criteria changes the source will have to comply at a future date.
- 3 -The regulations apply to this general type of emission source (i.e. vents, furnaces, towers, and fugitives) but do not apply to this particular emission source.

Blank – The regulations clearly do not apply to this type of emission source.

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Union Carbide Corp - St Charles Operations
 Agency Interest No.: 2083
 Unit 8 (EXP)
 Taft, St. Charles Parish, Louisiana

X. Table 1. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	40 CFR 60 NSPS						40 CFR 61						40 CFR 63 NESHAP						40 CFR		
		K	Ka	Kb	VV	NNN	RRR	A	FF	V	A	F	G	H	PPP	64	68	82				
GRP 96	Unit 8 (EXP)					3					1	3	1	1	1	1	1	1				
FUG 10	Fugitives (196Q)				1																	
EQT 478	Flare (3900)																					
EQT 479	Reactor C-1101 (3902)							3														
EQT 480	Reactor C-1201 (3903)							3														
EQT 481	Reactor C-1301 (3904)							3														
EQT 483	Tank C-511 (3907)			3													1					
EQT 484	Tank C-514 (3908)			3																		
EQT 485	Tank C-521 (3910)			3																		
EQT 486	Tank C-527 (3911)			3																		
EQT 487	Tank C-536 (3912)			3																		
EQT 488	Tank C-539 (3913)			3																		
EQT 489	Tank C-807 (3914)			3														1				
EQT 490	Tank C-901 (3915)			3														1				
EQT 491	Tank C-904 (3916)			3														1				

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Taft, St. Charles Parish, Louisiana

X. Table 1. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	40 CFR 60 NSPS			40 CFR 61			40 CFR 63 NESHAP			40 CFR						
		K	Ka	Kb	VV	NNN	RRR	A	FF	V	A	F	G	H	PPP	64	68
EQT 492	Tank C-907 (3917)																
EQT 493	Packaging and Drumming Operations (3918)				3										1	1	1
GRP 97	Octyl Phenol and Nonyl Phenol Unloading CAP (3920)																
EQT 494	Nonyl Phenol Unloading Spot (53-1)(3920a)																
EQT 495	Nonyl Phenol Unloading Spot (53-2)(3920b)																
EQT 496	Nonyl Phenol Unloading Spot (54-1)(3920c)																
EQT 497	Nonyl Phenol Unloading Spot (54-2)(3920d)																
EQT 498	Octyl Phenol Unloading Spot (50-1)(3920e)																
EQT 499	Octyl Phenol Unloading Spot (50-2) (3920f)																
EQT 500	Nonyl Phenol Degasser Pot 1 (3920g)																
EQT 501	Nonyl Phenol Degasser Pot 2 (3920h)																
EQT 502	Octyl Phenol Degasser Pot (3920i)																
EQT 503	Octyl Phenol and Nonyl Phenol Rail Car Sparging (3920j)																

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Union Carbide Corp - St Charles Operations
Agency Interest No.: 2083
Unit 8 (EXP)
Taft, St. Charles Parish, Louisiana

X. Table 1. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	40 CFR 60 NSPS						40 CFR 61						40 CFR 63 NESHAP						40 CFR								
		K	Ka	Kb	VV	NNN	RRR	A	FF	V	A	F	G	H	PPP	64	68	82										
EQT 504	Loading Operations #1 (Railcars) (3921)																											
EQT 505	Unloading Operations #2 (Tank Trucks) (3922)																											
EQT 506	Loading Operations #2 (3923)																											
EQT 507	Wastewater Secondary Emissions (3924)																			1		1						
EQT 508	Piperazine Scrubber (3925)																											3
GRP 98	Product Storage Bin CAP (D-413, 414, 415, 416) (Bin Vent CAP)																											
EQT 509	Product Storage Bin (D-413) (3926)																											
EQT 510	Product Storage Bin (D-414) (3927)																											
EQT 511	Product Storage Bin (D-415) (3928)																											
EQT 512	Product Storage Bin (D-416) (3929)																											
EQT 513	Solid Filling Station (3930)																											
EQT 514	Hot Well/Decanter Common Vent (3931)																											
EQT 515	Jet System 1 (3932)																											
EQT 516	Jet System 2 (3933)																											
EQT 517	Decanter Unloading (3934)																											

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Unit 8 (EXP)
Taft, St. Charles Parish, Louisiana

X. Table 1. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	40 CFR 60 NSPS				40 CFR 61				40 CFR 63 NESHAP				40 CFR			
		K	Ka	Kb	VV	NNN	RRR	A	FF	V	A	F	G	H	PPP	64	68
EQT 518	Solid Filling Station #2 (3935)																
EQT 519	Congealer Vent (3936)																3
EQT 520	Acetic Acid Scrubber (Tank 3906 emissions) (3938)																3
EQT 521	Mobile Drumming Operations (3940)																
EQT 522	Unit Knock Out Pot (3941)																
EQT 523	Flare Knock Out Pot (3942)																

KEY TO MATRIX

- 1 -The regulations have applicable requirements that apply to this particular emission source.
-The emission source may have an exemption from control stated in the regulation. The emission source may not have to be controlled but may have monitoring, recordkeeping, or reporting requirements.
- 2 -The regulations have applicable requirements that apply to this particular emission source but the source is currently exempt from these requirements due to meeting a specific criterion, such as it has not been constructed, modified or reconstructed since the regulations have been in place. If the specific criteria changes the source will have to comply at a future date.
- 3 -The regulations apply to this general type of emission source (i.e. vents, furnaces, towers, and fugitives) but do not apply to this particular emission source.
Blank – The regulations clearly do not apply to this type of emission source.

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XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source

ID No:	Requirement	Notes
GRP Unit 8 (EXP)	National Emission standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry [40 CFR 63 Subpart F]	DOES NOT APPLY. Polyethylene glycol was delisted from NESHAPs Subpart F, Table 1, 6/21/96. Therefore, this unit does not produce as a primary product a chemical on the Table 1 list.
	NSPS Subpart NNN – Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations [40 CFR 60.660-60.668]	DOES NOT APPLY. Unit 8 does not have distillation columns.
FUG010 Fugitives	Control of Emissions of Organic Compounds: Fugitive Emission control for Ozone Nonattainment Areas [LAC 33:III.2122]	DOES NOT APPLY. UCC is located in St. Charles Parish which is designated as attainment for ozone.
EQT478 Flare	Control of Emissions of Smoke: Smoke for Flaring Shall Not Exceed 20 Percent Opacity [LAC 33:III.1105]	DOES NOT APPLY. Unit 8 does not have pressure relief valves that vent to the flare.
	Emission Standards for Sulfur Dioxide Continuous Emissions Monitoring [LAC 33:III.1511.A] Emission Standards for Sulfur Dioxide Recordkeeping and Reporting [LAC 33:III.1513]	EXEMPT. Units emit less than 250 tons of SO ₂ per year. Record and retain at the site for at least 2 years the data required to demonstrate compliance with or exemption from SO ₂ standards of Chapter 15. Compliance data shall be reported annually in accordance with LAC 33:III.918.

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XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source

ID No:	Requirement	Notes
EQT 479 Reactor C- 1101, EQT 480 Reactor C-1201, EQT 481 Reactor C-1301	NSPS Subpart RRR – Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes [40 CFR 60.700-60.708]	DOES NOT APPLY. Unit 8 does not produce chemicals on the 40 CFR 60.707 list.
EQT 483 Tank C-511, EQT 489 Tank C-807, EQT 490 Tank C-901, EQT 491 Tank C-904, EQT 492 Tank C-907	NSPS Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984. [40 CFR 60.110b]	DOES NOT APPLY. Storage tanks have a capacity greater than 39,890 gallons and vapor pressures less than 0.51 psia.
EQT 489 Tank C-807	Control of Emissions of Organic Compounds: Storage of Volatile Organic Compounds [LAC 33:III.2103]	DOES NOT APPLY. Tanks store VOCs with a vapor pressure less than 1.5 psia.
EQT 484 Tank C-514, EQT 485 Tank C-521	National Emission Standards for Hazardous Air Pollutant Emissions for Polyether Polyols Production – Subpart PPP [40 CFR 63.1420]	DOES NOT APPLY. MACT is not required for supplemental list TAPs
	NSPS Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984. [40 CFR 60.110b]	DOES NOT APPLY. Storage tanks have a capacity less than 39,890 gallons and vapor pressures greater than 2.17 psia.

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Taft, St. Charles Parish, Louisiana

XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source

ID No:	Requirement	Notes
EQT 484 Tank C-514, EQT 485 Tank C-521	Control of Emissions of Organic Compounds: Storage of Volatile Organic Compounds [LAC 33:III.2103]	DOES NOT APPLY. Tanks store VOCs with a vapor pressure less than 1.5 psia.
EQT 486 Tank C-527, EQT 487 Tank C-536, EQT 488 Tank C-539	National Emission Standards for Hazardous Air Pollutant Emissions for Polyether Polyols Production – Subpart PPP [40 CFR 63.1420]	DOES NOT APPLY. Tanks function as surge control vessels and do not meet the definition of a storage vessel. [40 CFR 63.1423]
	NSPS Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984. [40 CFR 60.110b]	DOES NOT APPLY. Storage tanks have a capacity less than 39,890 gallons and vapor pressures less than 2.17 psia.
	Control of Emissions of Organic Compounds: Storage of Volatile Organic Compounds [LAC 33:III.2103]	DOES NOT APPLY. Tanks store VOCs with a vapor pressure less than 1.5 psia.

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Taft, St. Charles Parish, Louisiana

XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source

ID No:	Requirement	Notes
EQT 493 Packaging and Drumming Operations	Volatile Organic Compounds – Loading [LAC 33:III.2107]	DOES NOT APPLY. There are no products with a VOC true vapor pressure greater than 1.5 psia loaded at these sources.
	Comprehensive Toxic Air Pollutant Emission Control Program: Emission control and Reduction Requirements and Standards [LAC 33:III.5109]	DOES NOT APPLY. The materials packaged do not emit TAPs. No MACT is required.
GRP 97 Octyl Phenol and Nonyl Phenol Unloading CAP (EQT 494 – EQT 503), EQT 517 Decanter Unloading	Volatile Organic Compounds – Loading [LAC 33:III.2107]	DOES NOT APPLY. There are no products with a VOC true vapor pressure greater than 1.5 psia loaded at these sources. LAC 33:III.2107 does not address unloading operations.
	Comprehensive Toxic Air Pollutant Emission Control Program: Emission control and Reduction Requirements and Standards [LAC 33:III.5109]	DOES NOT APPLY. The materials packaged do not emit TAPs. No MACT is required.

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Union Carbide Corp - St Charles Operations
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Taft, St. Charles Parish, Louisiana

XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source

ID No.	Requirement	Notes
EQT 504, EQT 505, EQT 506 Loading Operations	Volatile Organic Compounds – Loading [LAC 33:III.2107]	DOES NOT APPLY. There are no products with a VOC true vapor pressure greater than 1.5 psia loaded at these sources.
EQT 508 Piperazine Scrubber	National Emission Standards for Hazardous Air Pollutant Emissions for Polyether Polyols Production – Subpart PPP [40 CFR 63.1420]	DOES NOT APPLY. Does not meet the definition of a process vent. Does not emit a gaseous emission stream containing more than 0.005 weight percent total organic HAP. Does not emit HAPs. [40 CFR 63.1425]
	Control of Emissions of Organic Compounds: Waste Gas Disposal [LAC 33:III.2115]	EXEMPT. Waste gas stream has a combined weight of VOCs equal to or less than 100 pounds (25.4 kg) in any continuous 24-hour period. [LAC 33:III.2115.H.1.c] Records to demonstrate that the criteria are being met for any exemption claimed must be maintained. [LAC 33:III.2115.K.4]
	Comprehensive Toxic Air Pollutant Emission Control Program: Emission control and Reduction Requirements and Standards [LAC 33:III.5109]	DOES NOT APPLY. The vent does not emit TAPs. No MACT is required.

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XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source

ID No:	Requirement	Notes
EQT 520 Acetic Acid Scrubber	National Emission Standards for Hazardous Air Pollutant Emissions for Polyether Polyols Production – Subpart PPP [40 CFR 63.1420]	DOES NOT APPLY. Does not meet the definition of a process vent. Does not emit a gaseous emission stream containing more than 0.005 weight percent total organic HAP. Scrubber is used for acetic acid tank filling, which contains only trace amounts of HAPs as impurities. [40 CFR 63.1425]
EQT 509 – EQT 512 Product Storage Bins D-413, 414, 415, 416	Control of Emissions of Organic Compounds: Waste Gas Disposal [LAC 33:III.2115]	EXEMPT. Waste gas stream has a combined weight of VOCs equal to or less than 100 pounds (25.4 kg) in any continuous 24-hour period. [LAC 33:III.2115.H.1.c] Records to demonstrate that the criteria are being met for any exemption claimed must be maintained. [LAC 33:III.2115.K.4]
EQT 509 – EQT 512 Product Storage Bins D-413, 414, 415, 416	Volatile Organic Compounds – Loading [LAC 33:III.2107]	DOES NOT APPLY. There are no products with a VOC true vapor pressure greater than 1.5 psia loaded at these sources.

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XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source

ID No:	Requirement	Notes
EQT 509 – EQT 512 Product Storage Bins D-413, 414, 415, 416	Comprehensive Toxic Air Pollutant Emission Control Program: Emission control and Reduction Requirements and Standards [LAC 33:III.5109]	DOES NOT APPLY. The vent does not emit TAPs. No MACT is required.
EQT 513 Solid Filling Station, EQT 518 Solid Filling Station #2, EQT 517 Decanter Unloader, EQT 519 Congealer Vent	Volatile Organic Compounds – Loading [LAC 33:III.2107]	DOES NOT APPLY. There are no products with a VOC true vapor pressure greater than 1.5 psia loaded at these sources.
EQT 517 Decanter Unloader, EQT 519 Congealer Vent	Comprehensive Toxic Air Pollutant Emission Control Program: Emission control and Reduction Requirements and Standards [LAC 33:III.5109]	DOES NOT APPLY. The vent does not emit TAPs. No MACT is required.
EQT 519 Congealer Vent	National Emission Standards for Hazardous Air Pollutant Emissions for Polyether Polyols Production – Subpart PPP [40 CFR 63.1420]	DOES NOT APPLY. Does not meet the definition of a process vent. Does not emit a gaseous emission stream containing more than 0.005 weight percent total organic HAP. Does not emit HAPs. [40 CFR 63.1425]

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XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source

ID No:	Requirement	Notes
EQT 519 Congealer Vent	Control of Emissions of Organic Compounds: Waste Gas Disposal [LAC 33:III.2115]	DOES NOT APPLY. The material vented is a solid not a waste gas stream.
	Comprehensive Toxic Air Pollutant Emission Control Program: Emission control and Reduction Requirements and Standards [LAC 33:III.5109]	DOES NOT APPLY. The vent does not emit TAPs. No MACT is required.
EQT 521 Mobile Drumming	Volatile Organic Compounds – Loading [LAC 33:III.2107]	DOES NOT APPLY. There are no products with a VOC true vapor pressure greater than 1.5 psia loaded at this source.

The above table provides explanation for both the exemption status or non-applicability of a source cited by 1, 2 or 3 in the matrix presented in Section X (Table 1) of this permit.

40 CFR PART 70 GENERAL CONDITIONS

- A. The term of this permit shall be five (5) years from date of issuance. An application for a renewal of this 40 CFR Part 70 permit shall be submitted to the administrative authority no later than six months prior to the permit expiration date. Should a complete permit application not be submitted six months prior to the permit expiration date, a facility's right to operate is terminated pursuant to 40 CFR Section 70.7(c)(ii). Operation may continue under the conditions of this permit during the period of the review of the application for renewal. [LAC 33:III.507.E.1, E.3, E.4, reference 40 CFR 70.6(a)(2)]
- B. The conditions of this permit are severable; and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. [Reference 40 CFR 70.6(a)(5)]
- C. Permittee shall comply with all conditions of the 40 CFR Part 70 permit. Any permit noncompliance constitutes a violation of the Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [LAC 33:III.507.B.2, reference 40 CFR 70.6(a)(6)(i) & (iii)]
- D. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [Reference 40 CFR 70.6(a)(6)(ii)]
- E. This permit does not convey any property rights of any sort, or an exclusive privilege. [Reference 40 CFR 70.6(a)(6)(iv)]
- F. The permittee shall furnish to the permitting authority, within a reasonable time, any information that the permitting authority may request in writing to determine whether cause exists for modifying, revoking, and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the permitting authority copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality. A claim of confidentiality does not relieve the permittee of the requirement to provide the information. [LAC 33:III.507.B.2, 517.F, reference 40 CFR 70.6(a)(6)(v)]
- G. Permittee shall pay fees in accordance with LAC 33:III.Chapter 2 and 40 CFR Section 70.6(a)(7). [LAC 33:III.501.C.2, reference 40 CFR 70.6(a)(7)]

40 CFR PART 70 GENERAL CONDITIONS

- H. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the permitting authority or authorized representative to perform the following:
1. enter upon the permittee's premises where a 40 CFR Part 70 source is located or emission-related activity is conducted, or where records must be kept under the conditions of the permit [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(i)];
 2. have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(ii)];
 3. inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(iii)]; and
 4. as authorized by the Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(iv)]
- I. All required monitoring data and supporting information shall be kept available for inspection at the facility or alternate location approved by the agency for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Supporting information includes calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and all reports required by the permit.
[Reference 40 CFR 70.6(a)(3)(ii)(B)]
- J. Records of required monitoring shall include the following:
1. the date, place as defined in the permit, and time of sampling or measurements;
 2. the date(s) analyses were performed;
 3. the company or entity that performed the analyses;
 4. the analytical techniques or methods used;
 5. the results of such analyses; and
 6. the operating conditions as existing at the time of sampling or measurement.
- [Reference 40 CFR 70.6(a)(3)(ii)(A)]
- K. Permittee shall submit at least semiannually, reports of any required monitoring, clearly identifying all instances of deviations from permitted monitoring requirements, certified by a responsible company official. For previously reported deviations, in lieu of attaching the individual deviation reports, the semiannual report may clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. The semiannual reports shall be submitted to the Office of Environmental Compliance, Surveillance Division by March 31 for the preceding period encompassing July through December and September 30 for the preceding period encompassing January through June. Any quarterly deviation report required to be submitted by March 31 or September 30 in accordance with Part 70 General Condition R may be consolidated with the semi-annual reports required by this general condition as long as the report clearly indicates this and all required information is included and clearly delineated in the consolidated report. [LAC 33:III.507.H, reference 40 CFR 70.6(a)(3)(iii)(A)]
- L. The permittee shall submit at least semiannual reports on the status of compliance pursuant to 40 CFR Section 70.5 (c) (8) and a progress report on any applicable schedule of compliance pursuant to 40 CFR Section 70.6 (c) (4). [LAC 33:III.507.H.1, reference 40 CFR 70.6(c)(4)]

40 CFR PART 70 GENERAL CONDITIONS

- M. Compliance certifications per LAC 33:III.507.H.5 shall be submitted to the Administrator as well as the permitting authority. For previously reported compliance deviations, in lieu of attaching the individual deviation reports, the annual report may clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. The compliance certifications shall be submitted to the Office of Environmental Compliance, Surveillance Division by March 31 for the preceding calendar year. [LAC 33:III.507.H.5, reference 40 CFR 70.6(c)(5)(iv)]
- N. If the permittee seeks to reserve a claim of an affirmative defense as provided in LAC 33:III.507.J.2, the permittee shall, in addition to any emergency or upset provisions in any applicable regulation, notify the permitting authority within 2 working days of the time when emission limitations were exceeded due to the occurrence of an upset. In the event of an upset, as defined under LAC 33:III.507.J, which results in excess emissions, the permittee shall demonstrate through properly signed, contemporaneous operating logs, or other relevant evidence that: 1) an emergency occurred and the cause was identified; 2) the permitted facility was being operated properly at the time; and 3) during the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standard or requirement of the permit. [LAC 33:III.507.J.2, reference 40 CFR 70.6(g)(3)(iv) & (i-iii)]
- O. Permittee shall maintain emissions at a level less than or equal to that provided for under the allowances that the 40 CFR Part 70 source lawfully holds under Title IV of the Clean Air Act or the regulations promulgated thereunder. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid rain program, provided that such increases do not require a permit revision under any other applicable requirement. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement. Any such allowance shall be accounted for according to the procedures established in regulations promulgated under Title IV of the Clean Air Act. [Reference 40 CFR 70.6(a)(4)]
- P. Any permit issued pursuant to 40 CFR Part 70 may be subject to reopening prior to the expiration of the permit for any of the conditions specified in 40 CFR Section 70.7(f) or LAC 33:III.529. [LAC 33:III.529.A-B, reference 40 CFR 70.7(f)]
- Q. Permittee may request an administrative amendment to the permit to incorporate test results from compliance testing if the following criteria are met:
1. the changes are a result of tests performed upon start-up of newly constructed, installed, or modified equipment or operations;
 2. increases in permitted emissions will not exceed five tons per year for any regulated pollutant;
 3. increases in permitted emissions of Louisiana toxic air pollutants or of federal hazardous air pollutants would not constitute a modification under LAC 33:III. Chapter 51 or under Section 112 (g) of the Clean Air Act;
 4. changes in emissions would not require new source review for prevention of significant deterioration or nonattainment and would not trigger the applicability of any federally applicable requirement;
 5. changes in emissions would not qualify as a significant modification; and

40 CFR PART 70 GENERAL CONDITIONS

6. the request is submitted no later than 12 months after commencing operation. [LAC 33.III.523.A, reference 40 CFR 70.7(d)]
- R. Permittee shall submit prompt reports of all permit deviations as specified below to the Office of Environmental Compliance, Surveillance Division. All such reports shall be certified by a responsible official in accordance with 40 CFR 70.5(d).
 1. A written report shall be submitted within 7 days of any emission in excess of permit requirements by an amount greater than the Reportable Quantity established for that pollutant in LAC 33.I.Chapter 39.
 2. A written report shall be submitted within 7 days of the initial occurrence of any emission in excess of permit requirements, regardless of the amount, where such emission occurs over a period of seven days or longer.
 3. A written report shall be submitted quarterly to address all permit deviations not included in paragraphs 1 or 2 above. Unless required by an applicable reporting requirement, a written report is not required during periods in which there is no deviation. The quarterly deviation reports submitted on March 31 and September 30 may be consolidated with the semi-annual reports required by Part 70 General Condition K as long as the report clearly indicates this and all required information is included and clearly delineated in the consolidated report. For previously reported permit deviations, in lieu of attaching the individual deviation reports, the quarterly report may clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. The schedule for submittal of quarterly reports shall be no later than the dates specified below for any permit deviations occurring during the corresponding specified calendar quarter:
 - a. Report by June 30 to cover January through March
 - b. Report by September 30 to cover April through June
 - c. Report by December 31 to cover July through September
 - d. Report by March 31 to cover October through December
 4. Any written report submitted in advance of the timeframes specified above, in accordance with an applicable regulation, may serve to meet the reporting requirements of this condition provided such reports are certified in accordance with 40 CFR 70.5(d) and contain all information relevant to the permit deviation. Reporting under this condition does not relieve the permittee from the reporting requirements of any applicable regulation, including LAC 33.I.Chapter 39, LAC 33.III.Chapter 9, and LAC 33.III.5107. [Reference 40 CFR 70.6(a)(3)(iii)(B)]
- S. Permittee shall continue to comply with applicable requirements on a timely basis, and will meet on a timely basis applicable requirements that become effective during the permit term. [Reference 40 CFR 70.5(c)(8)(iii)]

40 CFR PART 70 GENERAL CONDITIONS

- T. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
1. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156;
 2. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158;
 3. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161;
 4. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with recordkeeping requirements pursuant to 40 CFR 82.166. ("MVAC-like appliance" as defined at 40 CFR 82.152);
 5. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to 40 CFR 82.156; and
 6. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166. [Reference 40 CFR 82, Subpart F]
- U. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.
- The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant. [Reference 40 CFR 82, Subpart B]
- V. Data availability for continuous monitoring or monitoring to collect data at specific intervals: Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the emissions unit is operating. For purposes of reporting monitoring deviations under Part 70 General Conditions K and R, and unless otherwise provided for in the Specific Requirements (or Table 3) of this permit, the minimum degree of data availability shall be at least 90% (based on a monthly average) of the operating time of the emissions unit or activity being monitored. This condition does not apply to Leak Detection and Repair (LDAR) programs for fugitive emissions (e.g., 40 CFR 60 Subpart VV, 40 CFR 63 Subpart H).

**LOUISIANA AIR EMISSION PERMIT
GENERAL CONDITIONS**

- I. This permit is issued on the basis of the emissions reported in the application for approval of emissions and in no way guarantees that the design scheme presented will be capable of controlling the emissions to the type and quantities stated. Failure to install, properly operate and/or maintain all proposed control measures and/or equipment as specified in the application and supplemental information shall be considered a violation of the permit and LAC 33:III.501. If the emissions are determined to be greater than those allowed by the permit (e.g. during the shakedown period for new or modified equipment) or if proposed control measures and/or equipment are not installed or do not perform according to design efficiency, an application to modify the permit must be submitted. All terms and conditions of this permit shall remain in effect unless and until revised by the permitting authority.
- II. The permittee is subject to all applicable provisions of the Louisiana Air Quality Regulations. Violation of the terms and conditions of the permit constitutes a violation of these regulations.
- III. The Emission Rates for Criteria Pollutants, Emission Rates for TAP/HAP & Other Pollutants, and Specific Requirements sections or, where included, Emission Inventory Questionnaire sheets establish the emission limitations and are a part of the permit. Any operating limitations are noted in the Specific Requirements or, where included, Tables 2 and 3 of the permit. The synopsis is based on the application and Emission Inventory Questionnaire dated October 12, 1996, and revised application and EIQs dated April 17, 2000, September 4, 2002, and July 18, 2005, as well as additional information received October 24, 2005.
- IV. This permit shall become invalid, for the sources not constructed, if:
 - A. Construction is not commenced, or binding agreements or contractual obligations to undertake a program of construction of the project are not entered into, within two (2) years (18 months for PSD permits) after issuance of this permit, or;
 - B. If construction is discontinued for a period of two (2) years (18 months for PSD permits) or more.The administrative authority may extend this time period upon a satisfactory showing that an extension is justified.
This provision does not apply to the time period between construction of the approved phases of a phased construction project. However, each phase must commence construction within two (2) years (18 months for PSD permits) of its projected and approved commencement date.
- V. The permittee shall submit semiannual reports of progress outlining the status of construction, noting any design changes, modifications or alterations in the construction schedule which have or may have an effect on the emission rates or ambient air quality levels. These reports shall continue to be submitted until such time as construction is certified as being complete. Furthermore, for any significant change in the design, prior approval shall be obtained from the Office of Environmental Services, Air Permits Division.
- VI. The permittee shall notify the Department of Environmental Quality, Office of Environmental Services, Air Permits Division within ten (10) calendar days from the date that construction is certified as complete and the estimated date of start-up of operation. The appropriate Regional Office shall also be so notified within the same time frame.

**LOUISIANA AIR EMISSION PERMIT
GENERAL CONDITIONS**

- VII. Any emissions testing performed for purposes of demonstrating compliance with the limitations set forth in paragraph III shall be conducted in accordance with the methods described in the Specific Conditions and, where included, Tables 1, 2, 3, 4, and 5 of this permit. Any deviation from or modification of the methods used for testing shall have prior approval from the Office of Environmental Assessment, Air Quality Assessment Division.
- VIII. The emission testing described in paragraph VII above, or established in the specific conditions of this permit, shall be conducted within sixty (60) days after achieving normal production rate or after the end of the shakedown period, but in no event later than 180 days after initial start-up (or restart-up after modification). The Office of Environmental Assessment, Air Quality Assessment Division shall be notified at least (30) days prior to testing and shall be given the opportunity to conduct a pretest meeting and observe the emission testing. The test results shall be submitted to the Air Quality Assessment Division within sixty (60) days after the complete testing. As required by LAC 33:III.913, the permittee shall provide necessary sampling ports in stacks or ducts and such other safe and proper sampling and testing facilities for proper determination of the emission limits.
- IX. The permittee shall, within 180 days after start-up and shakedown of each project or unit, report to the Office of Environmental Compliance, Surveillance Division any significant difference in operating emission rates as compared to those limitations specified in paragraph III. This report shall also include, but not be limited to, malfunctions and upsets. A permit modification shall be submitted, if necessary, as required in Condition I.
- X. The permittee shall retain records of all information resulting from monitoring activities and information indicating operating parameters as specified in the specific conditions of this permit for a minimum of at least five (5) years.
- XI. If for any reason the permittee does not comply with, or will not be able to comply with, the emission limitations specified in this permit, the permittee shall provide the Office of Environmental Compliance, Surveillance Division with a written report as specified below.
- A. A written report shall be submitted within 7 days of any emission in excess of permit requirements by an amount greater than the Reportable Quantity established for that pollutant in LAC 33.I.Chapter 39.
- B. A written report shall be submitted within 7 days of the initial occurrence of any emission in excess of permit requirements, regardless of the amount, where such emission occurs over a period of seven days or longer.
- C. A written report shall be submitted quarterly to address all emission limitation exceedances not included in paragraphs A or B above. The schedule for submittal of quarterly reports shall be no later than the dates specified below for any emission limitation exceedances occurring during the corresponding specified calendar quarter:
1. Report by June 30 to cover January through March
2. Report by September 30 to cover April through June
3. Report by December 31 to cover July through September
4. Report by March 31 to cover October through December

**LOUISIANA AIR EMISSION PERMIT
GENERAL CONDITIONS**

- D. Each report submitted in accordance with this condition shall contain the following information:
1. Description of noncomplying emission(s);
 2. Cause of noncompliance;
 3. Anticipated time the noncompliance is expected to continue, or if corrected, the duration of the period of noncompliance;
 4. Steps taken by the permittee to reduce and eliminate the noncomplying emissions; and
 5. Steps taken by the permittee to prevent recurrences of the noncomplying emissions.
- E. Any written report submitted in advance of the timeframes specified above, in accordance with an applicable regulation, may serve to meet the reporting requirements of this condition provided all information specified above is included. For Part 70 sources, reports submitted in accordance with Part 70 General Condition R shall serve to meet the requirements of this condition provided all specified information is included. Reporting under this condition does not relieve the permittee from the reporting requirements of any applicable regulation, including LAC 33.I.Chapter 39, LAC 33.III.Chapter 9, and LAC 33.III.5107.
- XII. Permittee shall allow the authorized officers and employees of the Department of Environmental Quality, at all reasonable times and upon presentation of identification, to:
- A. Enter upon the permittee's premises where regulated facilities are located, regulated activities are conducted or where records required under this permit are kept;
 - B. Have access to and copy any records that are required to be kept under the terms and conditions of this permit, the Louisiana Air Quality Regulations, or the Act;
 - C. Inspect any facilities, equipment (including monitoring methods and an operation and maintenance inspection), or operations regulated under this permit; and
 - D. Sample or monitor, for the purpose of assuring compliance with this permit or as otherwise authorized by the Act or regulations adopted thereunder, any substances or parameters at any location.
- XIII. If samples are taken under Section XII.D. above, the officer or employee obtaining such samples shall give the owner, operator or agent in charge a receipt describing the sample obtained. If requested prior to leaving the premises, a portion of each sample equal in volume or weight to the portion retained shall be given to the owner, operator or agent in charge. If an analysis is made of such samples, a copy of the analysis shall be furnished promptly to the owner, operator or agency in charge.
- XIV. The permittee shall allow authorized officers and employees of the Department of Environmental Quality, upon presentation of identification, to enter upon the permittee's premises to investigate potential or alleged violations of the Act or the rules and regulations adopted thereunder. In such investigations, the permittee shall be notified at the time entrance is requested of the nature of the suspected violation. Inspections under this subsection shall be limited to the aspects of alleged violations. However, this shall not in any way preclude prosecution of all violations found.

**LOUISIANA AIR EMISSION PERMIT
GENERAL CONDITIONS**

- XV. The permittee shall comply with the reporting requirements specified under LAC 33:III.919 as well as notification requirements specified under LAC 33:III.927.
- XVI. In the event of any change in ownership of the source described in this permit, the permittee and the succeeding owner shall notify the Office of Environmental Services, Air Permits Division, within ninety (90) days after the event, to amend this permit.
- XVII. Very small emissions to the air resulting from routine operations, that are predictable, expected, periodic, and quantifiable and that are submitted by the permitted facility and approved by the Air Permits Division are considered authorized discharges. Approved activities are noted in the General Condition XVII Activities List of this permit. To be approved as an authorized discharge, these very small releases must:
1. Generally be less than 5 TPY
 2. Be less than the minimum emission rate (MER)
 3. Be scheduled daily, weekly, monthly, etc., or
 4. Be necessary prior to plant startup or after shutdown [line or compressor pressuring/depressuring for example]
- These releases are not included in the permit totals because they are small and will have an insignificant impact on air quality. This general condition does not authorize the maintenance of a nuisance, or a danger to public health and safety. The permitted facility must comply with all applicable requirements, including release reporting under LAC 33:I.3901.
- XVIII. Provisions of this permit may be appealed in writing pursuant to La. R.S. 30:2024(A) within 30 days from receipt of the permit. Only those provisions specifically appealed will be suspended by a request for hearing, unless the secretary or the assistant secretary elects to suspend other provisions as well. Construction cannot proceed except as specifically approved by the secretary or assistant secretary. A request for hearing must be sent to the following:

Attention: Office of the Secretary, Legal Services Division
La. Dept. of Environmental Quality
Post Office Box 4302
Baton Rouge, Louisiana 70821-4302

- XIX. Certain Part 70 general conditions may duplicate or conflict with state general conditions. To the extent that any Part 70 conditions conflict with state general conditions, then the Part 70 general conditions control. To the extent that any Part 70 general conditions duplicate any state general conditions, then such state and Part 70 provisions will be enforced as if there is only one condition rather than two conditions.

General Information

AI ID: 2083 Union Carbide Corp - St Charles Operations
Activity Number: PER19960020
Permit Number: 2446-V0
Air - Title V Regular Permit Initial

Also Known As:	ID	Name	User Group	Start Date
	2520-00001	Union Carbide Corp - Taft Star Plant	CDS Number	08-05-2002
	2520-0001	Union Carbide Corp - Taft Star Plant	Emission Inventory	03-03-2004
	13-1421730	Federal Tax ID	Federal Tax ID	11-21-1999
LAD041581422		Union Carbide Corp SCO Taft/Star	Hazardous Waste Notification	08-18-1980
PMT/PC		GPRAs Baselines	Hazardous Waste Permitting	10-01-1997
LAD041581422		Union Carbide	Inactive & Abandoned Sites	06-08-1981
LAD0000191		WPC File Number	LPDES Permit #	05-22-2003
LAR10C313		LPDES #	LPDES Permit #	12-12-2004
LAR10C447		LPDES #	LPDES Permit #	12-12-2004
LA-2163-L01		Radioactive Material License	Radiation License Number	07-06-2001
2163		X-Ray Registration Number	Radiation X-ray Registration Number	11-21-1999
GD-089-1324		Site ID #	Solid Waste Facility No.	04-30-2001
17809		Union Carbide Chemicals & Plastics	TEMPO Merge	10-17-2001
19135		Dow Union Carbide - St Charles Operations	TEMPO Merge	06-30-2002
34610		Union Carbide Corp - Hahnville Plant	TEMPO Merge	10-17-2001
35033		Union Carbide Corp - Star Plant	TEMPO Merge	07-15-2001
3832		Union Carbide Corp	TEMPO Merge	11-01-2000
38779		Union Carbide Corp	TEMPO Merge	07-15-2001
38780		Union Carbide Corp	TEMPO Merge	07-15-2001
38882		Union Carbide Corp	TEMPO Merge	07-22-2001
44903		Union Carbide Corp Taft Plant	TEMPO Merge	07-22-2001
45881		Union Carbide Chemical & Plastics	TEMPO Merge	07-22-2001
8533		Union Carbide	TEMPO Merge	09-05-2001
89428		Dow Chemical	TEMPO Merge	11-07-2001
9651		Union Carbide Star	TEMPO Merge	10-17-2001
2520-0001		Toxic Emissions Data Inventory #	Toxic Emissions Data Inventory #	01-01-1991
70057NCRBHWY31		TRI #	Toxic Release Inventory	07-30-2004
45011610		UST Facility ID (from UST legacy data)	Underground Storage Tanks	10-12-2002
			Main Phone:	9857834411

Physical Location:

355 Hwy 3142 Gate 28
Taft, LA 70057

Mailing Address:

PO Box 50
Hahnville, LA 700570050

General Information

AI ID: 2083 Union Carbide Corp - St Charles Operations

Activity Number: PER19960020

Permit Number: 2446-V0

Air - Title V Regular Permit Initial

Related People:	Name	Mailing Address	Phone (Type)	Relationship
	Deb Beck	PO Box 50 Hahnville, LA 700570050		
	Barry Minnich			Air Permit Contact For
	Fernando Signorino	PO Box 50 Hahnville, LA 700570050	9856333446 (WP)	Katrina Response Contact for
				Responsible Official for
Related Organizations:	Name	Address	Phone (Type)	Relationship
	Union Carbide Corp	PO Box 50 Hahnville, LA 700570050		Owns
	Union Carbide Corp	PO Box 50 Hahnville, LA 700570050		Operates
	Union Carbide Corp	PO Box 50 Hahnville, LA 700570050		Accident Prevention Billing Party for
	Union Carbide Corp	PO Box 50 Hahnville, LA 700570050		Solid Waste Billing Party for
	Union Carbide Corp	PO Box 50 Hahnville, LA 700570050		Air Billing Party for
	Union Carbide Corp	PO Box 50 Hahnville, LA 700570050		Radiation Registration Billing Party for
	Union Carbide Corp	PO Box 50 Hahnville, LA 700570050		Radiation License Billing Party for
	Union Carbide Corp	PO Box 50 Hahnville, LA 700570050		Water Billing Party for
	Union Carbide Corp	PO Box 50 Hahnville, LA 700570050		UST Billing Party for
SIC Codes:	2869, Industrial organic chemicals, nec			

Note: This report entitled "General Information" contains a summary of facility-level information contained in LDEQ's TEMPO database for this facility and is not considered a part of the permit. Please review the information contained in this document for accuracy and completeness. If any changes are required or if you have questions regarding this document, you may contact Mr. David Ferrand, Environmental Assistance Division, at (225) 219-3247 or email your changes to facupdate@la.gov.

INVENTORIES

AI ID: 2083 - Union Carbide Corp - St Charles Operations
 Activity Number: PER19960020
 Permit Number: 2446-V0
 Air - Title V Regular Permit Initial

Subject Item Inventory:	ID	Description	Tank Volume	Max. Operating Rate	Normal Operating Rate	Contents	Operating Time
EQT478	3900 - Flare			38.7 MM BTU/hr	18.8 MM BTU/hr		8760 hr/yr (All Year)
EQT479	3902 - Reactor C-1101						8760 hr/yr (All Year)
EQT480	3903 - Reactor C-1201						8760 hr/yr (All Year)
EQT481	3904 - Reactor C-1301						8760 hr/yr (All Year)
EQT482	3906 - Tank C-509		7082 gallons	119 gallons/min			8760 hr/yr (All Year)
EQT483	3907 - Tank C-511		52031 gallons	480 gallons/min			8760 hr/yr (All Year)
EQT484	3908 - Tank C-514		37041 gallons	225 gallons/min			8760 hr/yr (All Year)
EQT485	3910 - Tank C-521		37041 gallons	225 gallons/min			8760 hr/yr (All Year)
EQT486	3911 - Tank C-527		37041 gallons	450 gallons/min			8760 hr/yr (All Year)
EQT487	3912 - Tank C-536		37041 gallons	50 gallons/min			8760 hr/yr (All Year)
EQT488	3913 - Tank C-539		37041 gallons	50 gallons/min			8760 hr/yr (All Year)
EQT489	3914 - Tank C-807		72163 gallons	225 gallons/min			8760 hr/yr (All Year)
EQT490	3915 - Tank C-901		72163 gallons	250 gallons/min			8760 hr/yr (All Year)
EQT491	3916 - Tank C-904		72163 gallons	250 gallons/min			8760 hr/yr (All Year)
EQT492	3917 - Tank C-907		72163 gallons	250 gallons/min			8760 hr/yr (All Year)
EQT493	3918 - Packaging and Drumming Operations				100 MM lbs/yr		8760 hr/yr (All Year)
EQT494	3920a - Nonyl Phenol Unloading Spot (53-1)						2000 hr/yr (All Year)
EQT495	3920b - Nonyl Phenol Unloading Spot (53-2)						2000 hr/yr (All Year)
EQT496	3920c - Nonyl Phenol Unloading spot (54-1)						2000 hr/yr (All Year)
EQT497	3920d - Nonyl Phenol Unloading spot (54-2)						2000 hr/yr (All Year)
EQT498	3920e - Octyl Phenol Unloading spot (50-1)						2000 hr/yr (All Year)
EQT499	3920f - Octyl Phenol Unloading spot (50-2)						2000 hr/yr (All Year)
EQT500	3920g - Nonyl Phenol Degasser Pot 1						2000 hr/yr (All Year)
EQT501	3920h - Nonyl Phenol Degasser Pot 2						2000 hr/yr (All Year)
EQT502	3920i - Octyl Phenol Degasser Pot						2000 hr/yr (All Year)
EQT503	3920j - Octyl Phenol and Nonyl Phenol Rail Car Sparging						2000 hr/yr (All Year)
EQT504	3921 - Loading Operations #1 (Railcars)						2000 hr/yr (All Year)
EQT505	3922 - Unloading Operations #2 (Tank Trucks)		45000 gallons/hr	45000 gallons/hr			1000 hr/yr (All Year)
EQT506	3923 - Loading Operations #2						2200 hr/yr (All Year)
EQT507	3924 - Wastewater Secondary Emissions						8760 hr/yr (All Year)
EQT508	3925 - Piperaazine Scrubber						8760 hr/yr (All Year)
EQT509	3926 - Product Storage Bin (D-413)						8760 hr/yr (All Year)
EQT510	3927 - Product Storage Bin (D-414)						8760 hr/yr (All Year)
EQT511	3928 - Product Storage Bin (D-415)						8760 hr/yr (All Year)
EQT512	3929 - Product Storage Bin (D-416)						8760 hr/yr (All Year)
EQT513	3930 - Solid Filling Station						8760 hr/yr (All Year)
EQT514	3931 - Hot Well/Decanter Common Vent						8760 hr/yr (All Year)

INVENTORIES

AI ID: 2083 - Union Carbide Corp - St Charles Operations
 Activity Number: PER19960020
 Permit Number: 2446-V0
 Air - Title V Regular Permit Initial

Subject Item Inventory:

ID	Description	Tank Volume	Max. Operating Rate	Normal Operating Rate	Contents	Operating Time
EQT515	3932 - Jet System 1	-	-	-	-	8760 hr/yr (All Year)
EQT516	3933 - Jet System 2	-	-	-	-	8760 hr/yr (All Year)
EQT517	3934 - Decanter Unloading	-	-	-	-	8760 hr/yr (All Year)
EQT518	3935 - Solids Filling Station #2	-	-	-	-	8760 hr/yr (All Year)
EQT519	3936 - Congaler Vent	-	-	-	-	8760 hr/yr (All Year)
EQT520	3938 - Acetic Acid Scrubber (Tank 3506 Emissions)	-	-	-	-	8760 hr/yr (All Year)
EQT521	3940 - Mobile Drumming Operations	-	-	-	-	300 hr/yr (All Year)
EQT522	3941 - Unit Knock Out Pot	-	-	-	-	8760 hr/yr (All Year)
EQT523	3942 - Flare Knock Out Pot	-	-	-	-	8760 hr/yr (All Year)
FUG010	196Q - Fugitive Emissions	-	-	-	-	8760 hr/yr (All Year)

Subject Item Groups:

ID	Description	Included Components (from Above)
GRP096	Unit 8 (EXP)	EQT478 3900 - Flare
GRP096	Unit 8 (EXP)	EQT479 3902 - Reactor C-1101
GRP096	Unit 8 (EXP)	EQT480 3903 - Reactor C-1201
GRP096	Unit 8 (EXP)	EQT481 3904 - Reactor C-1301
GRP096	Unit 8 (EXP)	EQT482 3906 - Tank C-509
GRP096	Unit 8 (EXP)	EQT483 3907 - Tank C-511
GRP096	Unit 8 (EXP)	EQT484 3908 - Tank C-514
GRP096	Unit 8 (EXP)	EQT485 3910 - Tank C-521
GRP096	Unit 8 (EXP)	EQT486 3911 - Tank C-527
GRP096	Unit 8 (EXP)	EQT487 3912 - Tank C-536
GRP096	Unit 8 (EXP)	EQT488 3913 - Tank C-539
GRP096	Unit 8 (EXP)	EQT489 3914 - Tank C-807
GRP096	Unit 8 (EXP)	EQT490 3915 - Tank C-901
GRP096	Unit 8 (EXP)	EQT491 3916 - Tank C-904
GRP096	Unit 8 (EXP)	EQT492 3917 - Tank C-907
GRP096	Unit 8 (EXP)	EQT493 3918 - Packaging and Drumming Operations
GRP096	Unit 8 (EXP)	EQT494 3920a - Nonyl Phenol Unloading Spot (53-1)
GRP096	Unit 8 (EXP)	EQT495 3920b - Nonyl Phenol Unloading Spot (53-2)
GRP096	Unit 8 (EXP)	EQT496 3920c - Nonyl Phenol Unloading spot (54-1)
GRP096	Unit 8 (EXP)	EQT497 3920d - Nonyl Phenol Unloading spot (54-2)
GRP096	Unit 8 (EXP)	EQT498 3920e - Octyl Phenol Unloading spot (50-1)
GRP096	Unit 8 (EXP)	EQT499 3920f - Octyl Phenol Unloading spot (50-2)
GRP096	Unit 8 (EXP)	EQT500 3920g - Nonyl Phenol Degasster Pot 1

INVENTORIES

AI ID: 2083 - Union Carbide Corp - St Charles Operations
 Activity Number: PER19960020
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 Air - Title V Regular Permit Initial

Subject Item Groups:

ID	Description	Included Components (from Above)
GRP096	Unit 8 (EXP)	EQT501 3920h - Nonyl Phenol Degasser Pot 2
GRP096	Unit 8 (EXP)	EQT502 3920i - Octyl Phenol Degasser Pot
GRP096	Unit 8 (EXP)	EQT503 3920j - Octyl Phenol and Nonyl Phenol Rail Car Sparging
GRP096	Unit 8 (EXP)	EQT504 3921 - Loading Operations #1 (Railcars)
GRP096	Unit 8 (EXP)	EQT505 3922 - Unloading Operations #2 (Tank Trucks)
GRP096	Unit 8 (EXP)	EQT506 3923 - Loading Operations #2
GRP096	Unit 8 (EXP)	EQT507 3924 - Wastewater Secondary Emissions
GRP096	Unit 8 (EXP)	EQT508 3925 - Piperazine Scrubber
GRP096	Unit 8 (EXP)	EQT509 3926 - Product Storage Bin (D-413)
GRP096	Unit 8 (EXP)	EQT510 3927 - Product Storage Bin (D-414)
GRP096	Unit 8 (EXP)	EQT511 3928 - Product Storage Bin (D-415)
GRP096	Unit 8 (EXP)	EQT512 3929 - Product Storage Bin (D-416)
GRP096	Unit 8 (EXP)	EQT513 3930 - Solid Filling Station
GRP096	Unit 8 (EXP)	EQT514 3931 - Holi Well/Decanter Common Vent
GRP096	Unit 8 (EXP)	EQT515 3932 - Jet System 1
GRP096	Unit 8 (EXP)	EQT516 3933 - Jet System 2
GRP096	Unit 8 (EXP)	EQT517 3934 - Decanter Unloading
GRP096	Unit 8 (EXP)	EQT518 3935 - Solid Filling Station #2
GRP096	Unit 8 (EXP)	EQT519 3936 - Congealer Vent
GRP096	Unit 8 (EXP)	EQT520 3938 - Acetic Acid Scrubber (Tank 3906 Emissions)
GRP096	Unit 8 (EXP)	EQT521 3940 - Mobile Drumming Operations
GRP096	Unit 8 (EXP)	EQT522 3941 - Unit Knock Out Pot
GRP096	Unit 8 (EXP)	EQT523 3942 - Flare Knock Out Pot
GRP096	Unit 8 (EXP)	FUG10 196Q - Fugitive Emissions
GRP096	Unit 8 (EXP)	GRPF97 3920 CAP - Octyl Phenol and Nonyl Phenol Unloading Cap
GRP096	Unit 8 (EXP)	GRPF98 Bin Vent CAP - Product Storage Bin Cap
GRP097	3920 CAP - Octyl Phenol and Nonyl Phenol Unloading Cap	EQT494 3920a - Nonyl Phenol Unloading Spot (53-1)
GRP097	3920 CAP - Octyl Phenol and Nonyl Phenol Unloading Cap	EQT495 3920b - Nonyl Phenol Unloading Spot (53-2)
GRP097	3920 CAP - Octyl Phenol and Nonyl Phenol Unloading Cap	EQT496 3920c - Nonyl Phenol Unloading spot (54-1)
GRP097	3920 CAP - Octyl Phenol and Nonyl Phenol Unloading Cap	EQT497 3920d - Nonyl Phenol Unloading spot (54-2)
GRP097	3920 CAP - Octyl Phenol and Nonyl Phenol Unloading Cap	EQT498 3920e - Octyl Phenol Unloading spot (50-1)
GRP097	3920 CAP - Octyl Phenol and Nonyl Phenol Unloading Cap	EQT499 3920f - Octyl Phenol Unloading spot (50-2)
GRP097	3920 CAP - Octyl Phenol and Nonyl Phenol Unloading Cap	EQT500 3920g - Nonyl Phenol Degasser Pot 1
GRP097	3920 CAP - Octyl Phenol and Nonyl Phenol Unloading Cap	EQT501 3920h - Nonyl Phenol Degasser Pot 2
GRP097	3920 CAP - Octyl Phenol and Nonyl Phenol Unloading Cap	EQT502 3920i - Octyl Phenol Degasser Pot
GRP097	3920 CAP - Octyl Phenol and Nonyl Phenol Unloading Cap	EQT503 3920j - Octyl Phenol and Nonyl Phenol Rail Car Sparging
GRP098	Bin Vent CAP - Product Storage Bin Cap	EQT509 3926 - Product Storage Bin (D-413)

INVENTORIES

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Subject Item Groups:

Subject Item	Description	Included Components (from Above)
GRP098 Bin Vent CAP - Product Storage Bin Cap		EQT510 3927 - Product Storage Bin (D-414)
GRP098 Bin Vent CAP - Product Storage Bin Cap		EQT511 3928 - Product Storage Bin (D-415)
GRP098 Bin Vent CAP - Product Storage Bin Cap		EQT512 3929 - Product Storage Bin (D-416)
Relationships:		
	Relationship	Subject Item
EQT478 3900 - Flare	Controls emissions from	EQT479 3902 - Reactor C-1101
EQT478 3900 - Flare	Controls emissions from	EQT480 3903 - Reactor C-1201
EQT478 3900 - Flare	Controls emissions from	EQT481 3904 - Reactor C-1301
EQT479 3902 - Reactor C-1101	Vents to	EQT478 3900 - Flare
EQT480 3903 - Reactor C-1201	Vents to	EQT478 3900 - Flare
EQT481 3904 - Reactor C-1301	Vents to	EQT478 3900 - Flare
EQT482 3906 - Tank C-509	Vents to	EQT520 3938 - Acetic Acid Scrubber (Tank 3906 Emissions)
EQT520 3938 - Acetic Acid Scrubber (Tank 3906 Emissions)	Controls emissions from	EQT482 3906 - Tank C-509
Stack Information:		
ID	Velocity (ft/sec)	Flow Rate (cubic ft/min-actual)
EQT478 3900 - Flare	7.61	161
EQT483 3907 - Tank C-511		.67
EQT484 3908 - Tank C-514		
EQT485 3910 - Tank C-521		
EQT486 3911 - Tank C-527		
EQT487 3912 - Tank C-536		
EQT488 3913 - Tank C-539		
EQT489 3914 - Tank C-807		
EQT490 3915 - Tank C-901		
EQT491 3916 - Tank C-904		
EQT492 3917 - Tank C-907		
EQT494 3920a - Nonyl Phenol Unloading Spot (53-1)		
EQT495 3920b - Nonyl Phenol Unloading Spot (53-2)		
EQT496 3920c - Nonyl Phenol Unloading spot (54-1)		
EQT497 3920d - Nonyl Phenol Unloading spot (54-2)		
EQT498 3920e - Octyl Phenol Unloading spot (50-1)		
EQT499 3920f - Octyl Phenol Unloading spot (50-2)		
EQT500 3920g - Nonyl Phenol Degasser Pot 1		
EQT501 3920h - Nonyl Phenol Degasser Pot 2		
EQT502 3920i - Octyl Phenol Degasser Pot		
EQT503 3920j - Octyl Phenol and Nonyl Phenol Rail Car Sparging		
EQT504 3921 - Loading Operations #1 (Railcars)		

INVENTORIES

AI ID: 2083 - Union Carbide Corp - St Charles Operations
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Stack Information:

ID	Description	Velocity (ft/sec)	Flow Rate (cubic ft/min-actual)	Diameter (feet)	Discharge Area (square feet)	Height (feet)	Temperature (oF)
EQT505	3922 - Unloading Operations #2 (Tank Trucks)						
EQT506	3923 - Loading Operations #2						
EQT509	3926 - Product Storage Bin (D-413)			.1	.33		248
EQT510	3927 - Product Storage Bin (D-414)			.1	.33		257
EQT511	3928 - Product Storage Bin (D-415)			.1	.33		60
EQT512	3929 - Product Storage Bin (D-416)			.1	.33		60
EQT513	3930 - Solid Filling Station			.26	.75	.25	60
EQT514	3931 - Hot Well/Decanter Common Vent			.17	.23	.25	110
EQT515	3932 - Jet System 1			.21.3	.160	.13	104
EQT516	3933 - Jet System 2			.34.3	.160	.25	85
EQT517	3934 - Decanter Unloading						104
EQT518	3935 - Solid Filling Station #2			.26	.75	.05	3
EQT519	3936 - Congealer Vent			.35.9	.45.2	.02	110
EQT522	3941 - Unit Knock Out Pot						70
EQT523	3942 - Flare Knock Out Pot						104
GRP097	3920 CAP - Octyl Phenol and Nonyl Phenol Unloading Cap						176
GRP098	Bin Vent CAP - Product Storage Bin Cap			.1	.33		60

Fee Information:

Subj Item Id	Multiplier	Units Of Measure	Fee Desc
AI2083	561	MM Lb/Yr	0630 - Organic Oxides, Alcohols, Glycols (Rated Capacity)

SPECIFIC REQUIREMENTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations

Activity Number: PER19960020

Permit Number: 2446-V0

Air - Title V Regular Permit Initial

EQT478 3900 - Flare

- 1 Submit notification: Due to the Office of Environmental Compliance, Emergency and Radiological Services Division, Single Point of Contact (SPOC), as soon as possible after the start of burning of pressure valve releases for control over process upsets. Notify in accordance with LAC 33:I.3923. Notification is required only if the upset cannot be controlled in six hours. [LAC 33:III.1105]
 - 2 Submit report: Due in writing to the Office of Environmental Compliance, Surveillance Division, within seven calendar days after startup or shutdown, if flaring was not the result of failure to maintain or repair equipment. Submit report if requesting exemption from the provisions of LAC 33:III.1105. Explain the conditions and duration of the startup or shutdown and list the steps necessary to remedy, prevent and limit the excess emissions. Minimize flaring and ensure that no ambient air quality standards are jeopardized. [LAC 33:III.1107]
 - 3 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1314.C]
- Which Months: All Year Statistical Basis: Six-minute average
- 4 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]
 - 5 Nonhalogenated hydrocarbon burning: Temperature \geq 1600 F (870 degrees C) for 0.5 seconds or greater in a direct-flame afterburner or thermal incinerator. Other devices will be accepted provided 98 percent or greater VOC destruction or removal efficiency can be demonstrated, as determined in accordance with LAC 33:III.2115.J.1, or if emissions are reduced to 20 ppm by volume, whichever is less stringent. [LAC 33:III.2115.B]
- Which Months: All Year Statistical Basis: None specified
- 6 Determine compliance with LAC 33:III.2115.A through G by applying the test methods specified in LAC 33:III.2115.I.1 through 5, as appropriate. [LAC 33:III.2115.I]
 - 7 Demonstrate compliance with LAC 33:III.2115 as requested by DEQ. [LAC 33:III.2115.J.1]
 - 8 Install and maintain monitors to accurately measure and record operational parameters of all required control devices as necessary to ensure the proper functioning of those devices in accordance with design specifications. Monitor and record at a minimum the parameters listed in LAC 33:III.2115.J.2.a through e. [LAC 33:III.2115.J.2]
 - 9 Comply with LAC 33:III.2115 as soon as practicable but in no event later than August 20, 2003. Comply with the requirements of LAC 33:III.2115 as soon as practicable, but in no event later than one year from the promulgation of the regulation revision, if subject to LAC 33:III.2115 as a result of a revision of LAC 33:III.2115.J
 - 10 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain the records specified in LAC 33:III.2115.K.1 through K.3. Maintain records on the premises for at least two years and make such information available to representatives of the Louisiana Department of Environmental Quality and the Environmental Protection Agency upon request. [LAC 33:III.2115.K]
 - 11 Heat content Permittee shall ensure destruction of emissions to the flare stack by maintaining the heat content of the flare gas above 200 BTU/scf. [LAC 33:III.501.C.6]
 - 12 Presence of a flame: Permittee shall install, maintain, and operate according to the manufacturer's specifications a heat sensing device to detect the continuous presence of a flame. Alternate devices may be used with the prior approval of the Department of Environmental Quality, Engineering Section. [LAC 33:III.501.C.6]
 - 13 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Flare is MACT for Reactors C-1101 (EQT 479), C-1201 (EQT 480), and C-1301 (EQT 481). [LAC 33:III.51.09.A]
 - 14 Design and operate for no visible emissions, as determined by the methods specified in 40 CFR 60.18(f), except for periods not to exceed a total of 5 minutes during any two consecutive hours. Subpart A. [40 CFR 60.18(c)(1)]
 - 15 Operate with a flame present at all times, as determined by the methods specified in 40 CFR 60.18(f)(2). Subpart A. [40 CFR 60.18(c)(2)]
 - 16 Diameter \geq 3 in, nonassisted, hydrogen content 8.0 percent (by volume) or greater, and designed for and operated with an exit velocity less than 122 ft/sec (37.2 m/sec) and less than the velocity, V_{max} , as determined by the specified equation. Subpart A. [40 CFR 60.18(c)(3)(K)(A)]
- Which Months: All Year Statistical Basis: None specified
- 17 Determine the actual exit velocity by the methods specified in 40 CFR 60.18(f)(4). Subpart A. [40 CFR 60.18(c)(3)(i)(B)]

SPECIFIC REQUIREMENTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations
Activity Number: PER19960020
Permit Number: 2446-V0
Air - Title V Regular Permit Initial

EQT478 3900 - Flare

- 18 Heat content >= 200 BTU/scf (7.45 MJ/scm). Determine the net heating value of the gas being combusted by the methods specified in 40 CFR 60.18(f)(3). Subpart A. [40 CFR 60.18(c)(3)(ii)]
- Which Months: All Year Statistical Basis: None specified
- 19 Exit Velocity < 60 ft/sec (18.3 m/sec), as determined by the method specified in 40 CFR 60.18(f)(4). Subpart A. [40 CFR 60.18(c)(4)(i)]
- Which Months: All Year Statistical Basis: None specified
- 20 Exit Velocity >= 60 and < 400 ft/sec (18.3 m/sec and 122 m/sec), as determined by the method specified in 40 CFR 60.18(f)(4). Subpart A. [40 CFR 60.18(c)(4)(ii)]
- Which Months: All Year Statistical Basis: None specified
- 21 Exit Velocity < 400 ft/sec (122 m/sec), as determined by the method specified in 40 CFR 60.18(f)(4), and less than the velocity V_{max}, as determined by the method specified in 40 CFR 60.18(f)(5). Subpart A. [40 CFR 60.18(c)(4)(iii)]
- Which Months: All Year Statistical Basis: None specified
- 22 Monitor flares to ensure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how to monitor flares.
- Subpart A. [40 CFR 60.18(d)]
- 23 Operate at all times when emissions may be vented to the flare. Subpart A. [40 CFR 60.18(e)]
- 24 Presence of a flame monitored by flame monitor continuously. Use a thermocouple or any other equivalent device to detect the presence of a flare pilot flame. Subpart A. [40 CFR 60.18(f)(2)]
- Which Months: All Year Statistical Basis: None specified
- 25 Monitoring: Install a device (including, but not limited to, a thermocouple, ultra-violet beam sensor, or infrared sensor) capable of continuously detecting the presence of a pilot flame. [40 CFR 63.1429(a)(2)]
- 26 Recordkeeping: Record the flare design and all visible emission readings, heat content determinations, flow rate determinations, and exit velocity determinations made during the flare specification determination, as required under 40 CFR 63.1437(c). [40 CFR 63.1430(b)(1)(i),(ii)]
- 27 Recordkeeping: Record the times and durations of all periods when all flames were absent or the monitor was not monitoring, as required by 40 CFR 63.1437(c). [40 CFR 63.1430(b)(1)(iii)]
- 28 Reporting: Report the times and durations of all periods when all pilot flames of a flare were absent. [40 CFR 63.1430(h)(5)]

EQT479 3902 - Reactor C-1101

- 29 Nonhalogenated hydrocarbon burning: Temperature >= 1600 F (870 degrees C) for 0.5 seconds or greater in a direct-flame afterburner or thermal incinerator. Other devices will be accepted provided 98 percent or greater VOC destruction or removal efficiency can be demonstrated, as determined in accordance with LAC 33:III.2115.J.1, or if emissions are reduced to 20 ppm by volume, whichever is less stringent. [LAC 33:III.2115.B]
- Which Months: All Year Statistical Basis: None specified
- 30 Determine compliance with LAC 33:III.2115.A through G by applying the test methods specified in LAC 33:III.2115.I.1 through 5, as appropriate. [LAC 33:III.2115.I.]
- 31 Demonstrate compliance with LAC 33:III.2115 as requested by DEQ. [LAC 33:III.2115.J.]
- 32 Install and maintain monitors to accurately measure and record operational parameters of all required control devices as necessary to ensure the proper functioning of those devices in accordance with design specifications. Monitor and record at a minimum the parameters listed in LAC 33:III.2115.J.2 through e. [LAC 33:III.2115.J.2]
- 33 Comply with LAC 33:III.2115 as soon as practicable but in no event later than August 20, 2003. Comply with the requirements of LAC 33:III.2115 as soon as practicable, but in no event later than one year from the promulgation of the regulation revision, if subject to LAC 33:III.2115 as a result of a revision of LAC 33:III.2115. [LAC 33:III.2115.J.]
- 34 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain the records specified in LAC 33:III.2115.K.1 through K.3. Maintain records on the premises for at least two years and make such information available to representatives of the Louisiana Department of Environmental Quality and the Environmental Protection Agency upon request. [LAC 33:III.2115.K]

SPECIFIC REQUIREMENTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations

Activity Number: PER19960020

Permit Number: 2446-V0

Air - Title V Regular Permit Initial

EQT479 3902 - Reactor C-1101

- 35 Owner or operator shall comply with emission requirements specified by LAC 33:III.2115 by using a flare with a destruction efficiency of 98%. [LAC 33:III.501.C.6]
- 36 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with the applicable requirements of 40 CFR 63 Subpart PPP will be considered as MACT. [LAC 33:III.5109.A]
- 37 The owner or operator will reduce total epoxide emissions from applicable process vent using a flare. [40 CFR 63.1425(a)(2)(i)]
- 38 Reduce the total epoxide from each process vent using a flare. [40 CFR 63.1425(b)(2)(i)]
- 39 Monitoring: Install, maintain, and operate a flow indicator that takes a reading at least once at approximately equal intervals of about 15 minutes. Flow indicator must be installed at the entrance to any bypass line that could divert emissions away from the combustion, recovery or recapture device and to the atmosphere. [40 CFR 63.1429(C)(1)]
- 40 Recordkeeping: Any times when the process vent was diverted from the combustion, recovery or recapture device each hour. [40 CFR 63.1430(d)(3)]
- 41 Reporting: Times of all periods when vent stream is diverted. [40 CFR 63.1430(h)(3)]

EQT480 3903 - Reactor C-1201

- 42 Nonhalogenated hydrocarbon burning: Temperature \geq 1600 F (870 degrees C) for 0.5 seconds or greater in a direct-flame afterburner or thermal incinerator. Other devices will be accepted provided 98 percent or greater VOC destruction or removal efficiency can be demonstrated, as determined in accordance with LAC 33:III.2115.J.1, or if emissions are reduced to 20 ppm by volume, whichever is less stringent. [LAC 33:III.2115.B]
- 43 Which Months: All Year Statistical 1 Basis: None specified
- 44 Determine compliance with LAC 33:III.2115.A through G by applying the test methods specified in LAC 33:III.2115.I.1 through 5, as appropriate. [LAC 33:III.2115.I.]
- 45 Demonstrate compliance with LAC 33:III.2115.J.1 as requested by DEQ. [LAC 33:III.2115.J.1]
- 46 Install and maintain monitors to accurately measure and record operational parameters of all required control devices as necessary to ensure the proper functioning of those devices in accordance with design specifications. Monitor and record at a minimum the parameters listed in LAC 33:III.2115.J.2 through E. [LAC 33:III.2115.J.2]
- 47 Comply with LAC 33:III.2115 as soon as practicable but in no event later than August 20, 2003. Comply with the requirements of LAC 33:III.2115 as soon as practicable, but in no event later than one year from the promulgation of the regulation revision, if subject to LAC 33:III.2115 as a result of a revision of LAC 33:III.2115.J.1 through K.3.
- 48 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain the records specified in LAC 33:III.2115.K.1 through K.3. Maintain records on the premises for at least two years and make such information available to representatives of the Louisiana Department of Environmental Quality and the Environmental Protection Agency upon request. [LAC 33:III.2115.K]
- 49 Reduce the total epoxide from each process vent using a flare. [40 CFR 63.1425(b)(2)(i)]
- 50 The owner or operator will reduce total epoxide emissions from applicable process vent using a flare. [40 CFR 63.1425(a)(2)(i)]
- 51 Monitoring: Install, maintain, and operate a flow indicator that takes a reading at least once at approximately equal intervals of about 15 minutes. Flow indicator must be installed at the entrance to any bypass line that could divert emissions away from the combustion, recovery or recapture device and to the atmosphere. [40 CFR 63.1429(C)(1)]
- 52 Recordkeeping: Any times when the process vent was diverted from the combustion, recovery or recapture device each hour. [40 CFR 63.1430(d)(3)]
- 53 Reporting: Times of all periods when vent stream is diverted. [40 CFR 63.1430(h)(3)]

EQT481 3904 - Reactor C-1301

SPECIFIC REQUIREMENTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations

Activity Number: PER19960020

Permit Number: 2446-V0

Air - Title V Regular Permit Initial

EQT481 3904 - Reactor C-1301

55 Nonhalogenated hydrocarbon burning: Temperature >= 1600 F (870 degrees C) for 0.5 seconds or greater in a direct-flame afterburner or thermal incinerator. Other devices will be accepted provided 98 percent or greater VOC destruction or removal efficiency can be demonstrated, as determined in accordance with LAC 33:III.2115.J.1, or if emissions are reduced to 20 ppm by volume, whichever is less stringent. [LAC 33:III.2115.B]

Which Months: All Year Statistical Basis: None specified

56 Determine compliance with LAC 33:III.2115.A through G by applying the test methods specified in LAC 33:III.2115.I.1 through 5, as appropriate. [LAC 33:III.2115.I.]

57 Demonstrate compliance with LAC 33:III.2115 as requested by DEQ. [LAC 33:III.2115.J.1]

58 Install and maintain monitors to accurately measure and record operational parameters of all required control devices as necessary to ensure the proper functioning of those devices in accordance with design specifications. Monitor and record at a minimum the parameters listed in LAC 33:III.2115.J.2.a through e. [LAC 33:III.2115.J.2]

59 Comply with LAC 33:III.2115 as soon as practicable but in no event later than August 20, 2003. Comply with the requirements of LAC 33:III.2115 as soon as practicable, but in no event later than one year from the promulgation of the regulation revision, if subject to LAC 33:III.2115 as a result of a revision of LAC 33:III.2115. [LAC 33:III.2115.J.]

60 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain the records specified in LAC 33:III.2115.K.1 through K.3. Maintain records on the premises for at least two years and make such information available to representatives of the Louisiana Department of Environmental Quality and the Environmental Protection Agency upon request. [LAC 33:III.2115.K]

61 Owner or operator shall comply with emission requirements specified by LAC 33:III.2115 by using a flare with a destruction efficiency of 98%. [LAC 33:III.501.C.6]

62 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with the applicable requirements of 40 CFR 63 Subpart PPP will be considered as MACT. [LAC 33:III.5109.A]

63 The owner or operator will reduce total epoxide emissions from applicable process vent using a flare. [40 CFR 63.1425(a)(2)(i)]

64 Reduce the total epoxide from each process vent using a flare. [40 CFR 63.1425(b)(2)(i)]

65 Monitoring: Install, maintain, and operate a flow indicator that takes a reading at least once at approximately equal intervals of about 15 minutes. Flow indicator must be installed at the entrance to any bypass line that could divert emissions away from the combustion, recovery or recapture device and to the atmosphere. [40 CFR 63.1429(C)(1)]

66 Recordkeeping: Any times when the process vent was diverted from the combustion, recovery or recapture device each hour. [40 CFR 63.1430(d)(3)]

67 Reporting: Times of all periods when vent stream is diverted. [40 CFR 63.1430(h)(3)]

EQT483 3907 - Tank C-511

68 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with 40 CFR 63 Subpart PPP shall be considered as MACT. [LAC 33:III.5109.A]

69 Shall comply with applicable provisions of 40 CFR 63 Subpart PPP. [40 CFR 63.1412(a)]

70 The owner or operator shall comply with the recordkeeping and reporting requirements for a Group 2 storage vessel specified in 40 CFR 63.123(a). [40 CFR 63.1432]

EQT484 3908 - Tank C-514

71 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with applicable portions of 40 CFR 63 Subpart PPP shall be considered as MACT. [LAC 33:III.5109.A]

72 The owner or operator shall comply with the recordkeeping and reporting requirements for a Group 2 storage vessel specified in 40 CFR 63.123(a). [40 CFR 63.1432]

EQT485 3910 - Tank C-521

SPECIFIC REQUIREMENTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations
Activity Number: PER19960020
Permit Number: 2446-V0
Air - Title V Regular Permit Initial

EQT485 3910 - Tank C-521

- 73 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with applicable portions of 40 CFR 63 Subpart PPP shall be considered as MACT. [LAC 33:III.5109.A]
74 The owner or operator shall comply with the recordkeeping and reporting requirements for a Group 2 storage vessel specified in 40 CFR 63.123(a). [40 CFR 63.1432]

EQT486 3911 - Tank C-527

- 75 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with the appropriate sections of 40 CFR 63 Subpart PPP shall be considered as MACT. [LAC 33:III.5109.A]

EQT487 3912 - Tank C-536

- 76 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with the appropriate sections of 40 CFR 63 Subpart PPP shall be considered as MACT. [LAC 33:III.5109.A]

EQT488 3913 - Tank C-539

- 77 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with the appropriate sections of 40 CFR 63 Subpart PPP shall be considered as MACT. [LAC 33:III.5109.A]

EQT489 3914 - Tank C-807

- 78 Source emits a Class II TAP (glycol ethers) listed on the Louisiana Toxic Air Pollutants Supplemental List. MACT is not required. [LAC 33:III.5109.A]

EQT490 3915 - Tank C-901

- 79 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with 40 CFR 63 Subpart PPP shall be considered as MACT. [LAC 33:III.5109.A]
80 Shall comply with applicable provisions of 40 CFR 63 Subpart PPP. [40 CFR 63.1432(a)]
81 The owner or operator shall comply with the recordkeeping and reporting requirements for a Group 2 storage vessel specified in 40 CFR 63.123(a). [40 CFR 63.1432]

EQT491 3916 - Tank C-904

- 82 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with 40 CFR 63 Subpart PPP shall be considered as MACT. [LAC 33:III.5109.A]
83 Shall comply with applicable provisions of 40 CFR 63 Subpart PPP. [40 CFR 63.1432(a)]
84 The owner or operator shall comply with the recordkeeping and reporting requirements for a Group 2 storage vessel specified in 40 CFR 63.123(a). [40 CFR 63.1432]

EQT492 3917 - Tank C-907

- 85 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with 40 CFR 63 Subpart PPP shall be considered as MACT. [LAC 33:III.5109.A]
86 Shall comply with applicable provisions of 40 CFR 63 Subpart PPP. [40 CFR 63.1432(a)]

SPECIFIC REQUIREMENTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations
Activity Number: PER19960020
Permit Number: 2446-V0
Air - Title V Regular Permit Initial

EQT492 3917 - Tank C-907

87 The owner or operator shall comply with the recordkeeping and reporting requirements for a Group 2 storage vessel specified in 40 CFR 63.123(a). [40 CFR 63.1432]

EQT493 3918 - Packaging and Drumming Operations

88 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1.305.1-7. [LAC 33:III.1.305]

89 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1.311.C]

Which Months: All Year Statistical Basis: Six-minute average

EQT504 3921 - Loading Operations #1 (Railcars)

90 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. No further control is required for products with true vapor pressure <1.5 psia. Compliance with LAC 33:III.21.07 shall be considered MACT if vapor pressure is >1.5 psia. [LAC 33:III.5109.A]

EQT505 3922 - Unloading Operations #2 (Tank Trucks)

91 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. No further control is required for products with true vapor pressure <1.5 psia. Compliance with LAC 33:III.21.07 shall be considered MACT if vapor pressure is >1.5 psia. [LAC 33:III.5109.A]

EQT506 3923 - Loading Operations #2

92 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. No further control is required for products with true vapor pressure <1.5 psia. Compliance with LAC 33:III.21.07 shall be considered MACT if vapor pressure is >1.5 psia. [LAC 33:III.5109.A]

EQT507 3924 - Wastewater Secondary Emissions

93 Equipment/operational data recordkeeping by electronic or hard copy as needed. Maintain records to demonstrate that the criteria are being met for any exemption claimed. Maintain records on the premises for at least two years and make such information available to representatives of the Louisiana Department of Environmental Quality and the Environmental Protection Agency upon request. [LAC 33:III.2115.K.4]

94 Source emits a Class II TAP (glycol ethers) listed on the Louisiana Toxic Air Pollutants Supplemental List. MACT is not required. [LAC 33:III.5109.A]

95 Owner or operator shall implement the applicable provisions of 40 CFR 63 Subpart G for Group 2 wastewater streams. [40 CFR 63.1433]

96 Owner or operator shall comply with the appropriate wastewater requirements specified in 40 CFR 63 Subpart PPP. Compliance with the requirements of 40 CFR 63 Subpart G constitutes compliance with Subpart PPP. [40 CFR 63.1433]

EQT508 3925 - Piperazine Scrubber

97 Equipment/operational data recordkeeping by electronic or hard copy as needed. Maintain records to demonstrate that the criteria are being met for any exemption claimed. Maintain records on the premises for at least two years and make such information available to representatives of the Louisiana Department of Environmental Quality and the Environmental Protection Agency upon request. [LAC 33:III.2115.K.4]

SPECIFIC REQUIREMENTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations

Activity Number: PER19960020

Permit Number: 2446-V0

Air - Title V Regular Permit Initial

EQT508 3925 - Piperazine Scrubber

98 The scrubber will operate with a water flow rate ≥ 1.6 gallons/min. The flow rate shall be monitored and recorded at the start and finish of the loading/unloading operation. A report listing the hours that the scrubber operated out of the range specified shall be kept on site and available for inspection by the Department of Environmental Quality, Surveillance Division. [LAC 33:III.1.501.C.6]
Which Months: All Year Statistical Basis: None specified

EQT509 3926 - Product Storage Bin (D-413)

99 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1.305.1-7. [LAC 33:III.1.305]
100 Opacity ≤ 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1.311.C]
Which Months: All Year Statistical Basis: Six-minute average

EQT510 3927 - Product Storage Bin (D-414)

101 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1.305.1-7. [LAC 33:III.1.305]
102 Opacity ≤ 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1.311.C]
Which Months: All Year Statistical Basis: Six-minute average

EQT511 3928 - Product Storage Bin (D-415)

103 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1.305.1-7. [LAC 33:III.1.305]
104 Opacity ≤ 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1.311.C]
Which Months: All Year Statistical Basis: Six-minute average

EQT512 3929 - Product Storage Bin (D-416)

105 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1.305.1-7. [LAC 33:III.1.305]
106 Opacity ≤ 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1.311.C]
Which Months: All Year Statistical Basis: Six-minute average

EQT513 3930 - Solid Filling Station

107 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1.305.1-7. [LAC 33:III.1.305]

SPECIFIC REQUIREMENTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations
Activity Number: PER19960020
Permit Number: 2446-V0
Air - Title V Regular Permit Initial

EQT513 3930 - Solid Filling Station

108 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1.311.C]

Which Months: All Year Statistical Basis: Six-minute average

EQT518 3935 - Solid Filling Station #2

109 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1.305.1-7. [LAC 33:III.1.305]

110 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1.311.C]

Which Months: All Year Statistical Basis: Six-minute average

EQT519 3936 - Conegealer Vent

111 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1.305.1-7. [LAC 33:III.1.305]

112 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1.311.C]

Which Months: All Year Statistical Basis: Six-minute average

EQT520 3938 - Acetic Acid Scrubber (Tank 3906 Emissions)

113 Equipment/operational data recordkeeping by electronic or hard copy as needed. Maintain records to demonstrate that the criteria are being met for any exemption claimed. Maintain records on the premises for at least two years and make such information available to representatives of the Louisiana Department of Environmental Quality and the Environmental Protection Agency upon request. [LAC 33:III.211.5.K.4]

114 The scrubber will operate with a water flow rate >= 0.4 gallons/min. The flow rate shall be monitored and recorded at the start and finish of the loading/unloading operation. A report listing the hours that the scrubber operated out of the range specified shall be kept on site and available for inspection by the Department of Environmental Quality, Surveillance Division. [LAC 33:III.501.C.6]

Which Months: All Year Statistical Basis: None specified

115 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with appropriate requirements in 40 CFR 63 Subpart PPP shall constitute MACT. [LAC 33:III.5109.A]

EQT522 3941 - Unit Knock Out Pot

116 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. No further control is required for products with true vapor pressure < 1.5 psia. Compliance with LAC 33:III.2107 shall be considered MACT if vapor pressure is > 1.5 psia. [LAC 33:III.5109.A]

EQT523 3942 - Flare Knock Out Pot

117 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. No further control is required for products with true vapor pressure < 1.5 psia. Compliance with LAC 33:III.2107 shall be considered MACT if vapor pressure is > 1.5 psia. [LAC 33:III.5109.A]

SPECIFIC REQUIREMENTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations

Activity Number: PER19960020

Permit Number: 2446-V0

Air - Title V Regular Permit Initial

FUG010 196Q - Fugitive Emissions

- 118 Equip all rotary pumps and compressors handling volatile organic compounds having a true vapor pressure of 1.5 psia or greater at handling conditions with mechanical seals or other equivalent equipment. [LAC 33:III.21(1)]
- 119 Comply with LAC 33:III.21 by implementing the Louisiana Consolidated Fugitive Emission Program Guidelines. Compliance is achieved through compliance with 40 CFR 63 Subpart H (as referenced by 40 CFR 63.1434). [LAC 33:III.21(21)]

120 Louisiana Fugitive Emission Program Consolidation Guidelines: Comply with a streamlined equipment leak monitoring program. Compliance with the streamlined program (Overall Most Stringent Program) in accordance with this specific condition shall serve to comply with each of the applicable fugitive emission monitoring programs being streamlined as shown below.

Programs Being Streamlined

- a. 40 CFR 60 Subpart VV
- b. 40 CFR 63 Subpart PPP
- c. LAC 33:III.21(21)
- d. 40 CFR 63 Subpart H (as referenced by 40 CFR 63 Subpart PPP)

Overall Most Stringent Program 40 CFR 63 Subpart H (as referenced by 40 CFR 63 Subpart PPP)

Noncompliance with the streamlined program, in accordance with this specific condition, may subject the permittee to enforcement action for one or more of the fugitive emissions programs. [LAC 33:III.50(1.C.6)]

- 121 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Compliance with the provisions of 40 CFR 63 Subpart H for components in toxic air pollutants service (fluid which contains Class I and Class II toxic air pollutants the sum of which total at least 5% by weight) is considered to be MACT for compliance with LAC 33:III.5109.A and 5111. [LAC 33:III.5109.A]
- 122 Comply with 40 CFR 60 Subpart VV by implementing the Louisiana Consolidated Fugitive Emission Program Guidelines. Compliance is achieved through compliance with 40 CFR 63 Subpart H (as referenced by 40 CFR 63.1434). [40 CFR 60.Subpart VV]
- 123 The owner or operator of each affected source shall comply with the HON equipment leak requirements in 40 CFR 63 Subpart H for all equipment in organic HAP service, except as specified in paragraphs 63.1434(b) through 63.1434(g). [40 CFR 63.1434(a)]
- 124 Identify each piece of equipment in a process unit such that it can be distinguished readily from equipment that is not subject to 40 CFR 63 Subpart H. Subpart H. [40 CFR 63.162(c)]
- 125 Clearly identify leaking equipment, for leaking equipment detected as specified in 40 CFR 63.163, 40 CFR 63.164, 40 CFR 63.168, 40 CFR 63.169, and 40 CFR 63.172 through 63.174. The identification may be removed after the equipment is repaired, except for valves or for connectors subject to 40 CFR 63.174(c)(1)(i). The identification on a valve may be removed after it has been monitored as specified in 40 CFR 63.168(f)(3) and 63.175(e)(i)(D), and no leak has been detected during the follow-up monitoring. If electing to comply using the provisions of 40 CFR 63.174(c)(1)(i), the identification on a connector may be removed after it is monitored as specified in 40 CFR 63.174(c)(1)(i) and no leak is detected during that monitoring. Subpart H. [40 CFR 63.162(f)]
- 126 Pumps in liquid service: Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 monthly to detect leaks, except as provided in 40 CFR 63.162(b) and 63.163(e) through (j). If a reading of 1,000 ppm (phase I); 5,000 ppm (phase II); or 5,000 ppm (phase III, pumps handling polymerizing monomers), 2,000 ppm (phase III, pumps in food/medical service), or 1,000 ppm (phase III, all other pumps) or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.163(c). Subpart H. [40 CFR 63.163(b)(1)]
- Which Months: All Year Statistical Basis: None specified

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1.27 Pumps in light liquid service: Presence of a leak monitored by visual inspection/determination weekly (calendar). Monitor for indications of liquids dripping from the pump seal. If there are indications of liquids dripping from the pump seal, a leak is detected. If a leak is detected, initiate the repair provisions specified in 40 CFR 63.163(c). Subpart H. [40 CFR 63.163(b)(3)]

Which Months: All Year Statistical Basis: None specified

1.28 Pumps in light liquid service: Make a first attempt at repair no later than 5 calendar days after a leak is detected, and complete repairs no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 63.163(c)(3) and 40 CFR 63.171. Subpart H. [40 CFR 63.163(c)]

1.29 Pumps in light liquid service: Implement a quality improvement program for pumps that complies with the requirements of 40 CFR 63.176, if, in Phase III, calculated on a 6-month rolling average, the greater of either 10 percent of the pumps in a process unit or three pumps in a process unit leak. Subpart H. [40 CFR 63.163(d)(2)]

1.30 Pumps in light liquid service: Determine percent leaking pumps using the equation in 40 CFR 63.163(d)(4). Subpart H. [40 CFR 63.163(d)(4)]

1.31 Pumps in light liquid service (dual mechanical seal system): Operate with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or equip with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that complies with the requirements of 40 CFR 63.172; or equip with a closed-loop system that purges the barrier fluid into a process stream. Comply with this requirement instead of the requirements in 40 CFR 63.163(a) through (d). Subpart H. [40 CFR 63.163(e)(1)]

1.32 Pumps in light liquid service (dual mechanical seal system): Ensure that the barrier fluid is not in light liquid service. Comply with this requirement instead of the requirements in 40 CFR 63.163(a) through (d). Subpart H. [40 CFR 63.163(e)(2)]

1.33 Pumps in light liquid service (dual mechanical seal system): Equip barrier fluid system with a sensor that will detect failure of the seal system, barrier fluid system, or both. Comply with this requirement instead of the requirements in 40 CFR 63.163(a) through (d). Subpart H. [40 CFR 63.163(e)(3)]

1.34 Pumps in light liquid service (dual mechanical seal system): Presence of a leak monitored by visual inspection/determination weekly (calendar). Monitor for indications of liquids dripping from the pump seal. If there are indications of liquid dripping from the pump seal at the time of the weekly inspection, monitor the pump as specified in 40 CFR 63.180(b) to determine if there is a leak of organic HAP in the barrier fluid. If an instrument reading of 1,000 ppm or greater is measured, a leak is detected. If a leak is detected, initiate the repair provisions in 40 CFR 63.163(e)(6). Comply with this requirement instead of the requirements in 40 CFR 63.163(a) through (d). Subpart H. [40 CFR 63.163(e)(1)]

1.35 Pumps in light liquid service (dual mechanical seal system): Which Months: All Year Statistical Basis: None specified Determine, based on design considerations and operating experience, criteria that indicates failure of the seal system, the barrier fluid system, or both. Comply with this requirement instead of the requirements in 40 CFR 63.163(a) through (d). Subpart H. [40 CFR 63.163(e)(6)(i)]

1.36 Pumps in light liquid service (dual mechanical seal system): Make a first attempt at repair no later than 5 calendar days after each leak is detected, and complete repairs no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 63.171. Comply with this requirement instead of the requirements in 40 CFR 63.163(a) through (d). Subpart H. [40 CFR 63.163(e)(4)]

1.37 Pumps in light liquid service (dual mechanical seal system - sensor): Equipment/operational data monitored by visual inspection/determination daily, or equip with an audible alarm unless the pump is located within the boundary of an unmanned plant site. If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criteria established in 40 CFR 63.163(e)(6), a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.163(e)(6). Comply with this requirement instead of the requirements in 40 CFR 63.163(a) through (d). Subpart H. [40 CFR 63.163(e)]

1.38 Pumps in light liquid service (unmanned plant site): Which Months: All Year Statistical Basis: None specified Presence of a leak monitored by visual inspection/determination at the regulation's specified frequency. Monitor each pump as often as practicable and at least monthly. Comply with this requirement instead of the weekly visual inspection requirement of 40 CFR 63.163(b)(3) and (e)(4), and the daily requirements of 40 CFR 63.163(e)(5). Subpart H. [40 CFR 63.163(h)]

Which Months: All Year Statistical Basis: None specified

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- I 39 Pumps in light liquid service (unsafe-to-monitor): Determine that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 63.163(b) through (d). Comply with this requirement instead of the requirements in 40 CFR 63.163(b) through (c). Subpart H. [40 CFR 63.163(j)(1)]
- I 40 Pumps in light liquid service (unsafe-to-monitor): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency. Maintain a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable. Comply with this requirement instead of the requirements in 40 CFR 63.163(b) through (e). Subpart H. [40 CFR 63.163(j)(2)]
- Which Months: All Year Statistical Basis: None specified
- I 41 Compressors: Equip with a seal system that includes a barrier fluid system and that prevents leakage of process fluid to the atmosphere, except as provided in 40 CFR 63.162(b) and 40 CFR 63.164(h) and (i). Subpart H. [40 CFR 63.164(a)]
- I 42 Compressors: Operate the seal system with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or equip with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that complies with the requirements of 40 CFR 63.172; or equip with a closed-loop system that purges the barrier fluid directly into a process stream. Subpart H. [40 CFR 63.164(b)]
- I 43 Compressors: Ensure that the barrier fluid is not in light liquid service. Subpart H. [40 CFR 63.164(c)]
- I 44 Compressors: Equip each barrier fluid system as described in 40 CFR 63.164(a) through (c) with a sensor that will detect failure of the seal system, barrier fluid system, or both. Subpart H. [40 CFR 63.164(c)]
- I 45 Compressors (sensor): Determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both. Subpart H. [40 CFR 63.164(e)(2)]
- I 46 Compressors: Make a first attempt at repair no later than 5 calendar days after each leak is detected, and complete repairs no later than 15 calendar days after each leak is detected, except as provided in 40 CFR 63.171. Subpart H. [40 CFR 63.164(g)]
- I 47 Compressors (no detectable emissions): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21, once initially and annually, and at other times requested by DEQ. Comply with this requirement instead of the requirements in 40 CFR 63.164(a) through (h). Subpart H. [40 CFR 63.164(i)(2)]
- Which Months: All Year Statistical Basis: None specified
- I 48 Compressors (sensor): Equipment/operational data monitored by visual inspection/determination daily, or equip with an alarm, unless the compressor is located within the boundary of an unmanned plant site. If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined under 40 CFR 63.164(e)(2), a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.164(g). Subpart H. [40 CFR 63.164]
- I 49 Pressure relief device in gas/vapor service: Organic HAP < 500 ppm above background except during pressure releases, as determined by the method specified in 63.180(c). Subpart H. [40 CFR 63.165(a)]
- Which Months: All Year Statistical Basis: None specified
- I 50 Pressure relief devices in gas/vapor service: After each pressure release, return to a condition indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 63.171. Subpart H. [40 CFR 63.165(b)(1)]
- I 51 Pressure relief devices in gas/vapor service: Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 within 5 days (calendar) after the pressure release and being returned to organic HAP service, to confirm the condition indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in 40 CFR 63.180(c). Subpart H. [40 CFR 63.165(b)(2)]
- Which Months: All Year Statistical Basis: None specified
- I 52 Pressure relief devices in gas/vapor service (rupture disk): After each pressure release, install a new rupture disk upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 63.171. Comply with this requirement instead of the requirements in 40 CFR 63.165(a) and (b). Subpart H. [40 CFR 63.165(d)(2)]

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- 153 Sampling connection systems: Equip with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 63.162(b). Operate the system as specified in 40 CFR 63.166(b). Subpart H. [40 CFR 63.166]
- 154 Open-ended valves or lines: Equip with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 63.162(b) and 40 CFR 63.167(d) and (e). Ensure that the cap, blind flange, plug or second valve seals the open end at all times except during operations requiring process fluid flow through the open-ended valve or line, or during maintenance or repair. Operate each open-ended valve or line equipped with a second valve in a manner such that the valve on the process fluid end is closed before the second valve is closed. Subpart H. [40 CFR 63.167]
- 155 Valves in gas/vapor service or light liquid service (Phase I): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 quarterly, as specified in 40 CFR 63.180(b). If an instrument reading of 10,000 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions in 40 CFR 63.168(f). Subpart H. [40 CFR 63.168(c)]
Which Months: All Year Statistical Basis: None Specified
- 156 Valves in gas/vapor service or light liquid service (Phase II): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 quarterly, as specified in 40 CFR 63.180(b). If an instrument reading of 500 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions in 40 CFR 63.168(f). Subpart H. [40 CFR 63.168(c)]
Which Months: All Year Statistical Basis: None Specified
- 157 Valves in gas/vapor service or light liquid service (Phase III, 2 percent or greater leaking valves): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 monthly, as specified in 40 CFR 63.180(b); or implement a quality improvement program for valves that complies with the requirements of 40 CFR 63.175 and monitor quarterly. If an instrument reading of 500 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions in 40 CFR 63.168(f). If electing to implement a quality improvement program, follow the procedures in 40 CFR 63.175. Subpart H. [40 CFR 63.168(d)(1)]
Which Months: All Year Statistical Basis: None Specified
- 158 Valves in gas/vapor service or light liquid service (Phase III, less than 2 percent leaking valves): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 quarterly, as specified in 40 CFR 63.180(b). If an instrument reading of 500 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions in 40 CFR 63.168(f).
Permittee may elect to comply with the alternate standards in 40 CFR 63.168(d)(3) and (d)(4). Subpart H. [40 CFR 63.168(d)(2)]
Which Months: All Year Statistical Basis: None Specified
- 159 Valves in gas/vapor service or light liquid service: Determine percent leaking valves using the equation in 40 CFR 63.168(e)(1). Subpart H. [40 CFR 63.168(e)(1)]
- 160 Valves in gas/vapor service or light liquid service (after leak repair): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 once within three months (at least) after repair to determine whether the valve has resumed leaking. Subpart H. [40 CFR 63.168(f)(3)]
Which Months: All Year Statistical Basis: None Specified
- 161 Valves in gas/vapor service or light liquid service: Make a first attempt at repair no later than 5 calendar days after a leak is detected, and complete repairs no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 63.171. Subpart H. [40 CFR 63.168(f)]
162 Valves in gas/vapor service or light liquid service (unsafe-to-monitor): Demonstrate that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 63.168(b) through (d). Comply with this requirement instead of the requirements in 40 CFR 63.168(b) through (f). Subpart H. [40 CFR 63.168(h)(1)]
- 163 Valves in gas/vapor service or light liquid service (unsafe-to-monitor): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency. Maintain a written plan that requires monitoring of the valves as frequently as practicable during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable. Comply with this requirement instead of the requirements in 40 CFR 63.168(b) through (f). Subpart H. [40 CFR 63.168(h)(2)]
Which Months: All Year Statistical Basis: None Specified
- 164 Valves in gas/vapor service or light liquid service (difficult-to-monitor): Demonstrate that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface or it is not accessible at anytime in a safe manner. Comply with this requirement instead of the requirements in 40 CFR 63.168(b) through (d). Subpart H. [40 CFR 63.168(i)(1)]

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165 Valves in gas/vapor service or light liquid service (difficult-to-monitor): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 annually. Maintain a written plan that requires monitoring of the valves at least once per calendar year. Comply with this requirement instead of the requirements in 40 CFR 63.168(b) through (d). Subpart H. [40 CFR 63.168(i)(3)]

Which Months: All Year Statistical Basis: None specified
166 Pumps, valves, connectors, and agitators in heavy liquid service; instrumentation systems; and pressure relief devices in liquid service: Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 within 5 days (calendar) if evidence of a potential leak to the atmosphere is found by visible, audible, olfactory, or any other detection method. If a reading of 10,000 ppm for agitators, 5,000 ppm for pumps handling polymerizing monomers, 2,000 ppm for all other pumps (including pumps in food/medical service), or 500 ppm for valves, connectors, instrumentation systems, and pressure relief devices, or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.169(a). Subpart H. [40 CFR 63.169(a)]

Which Months: All Year Statistical Basis: None specified
167 Pumps, valves, connectors, and agitators in heavy liquid service; instrumentation systems; and pressure relief devices in liquid service: Make a first attempt at repair no later than 5 calendar days after each leak is detected, and complete repairs no later than 15 calendar days after it each leak is detected, except as provided in 40 CFR 63.171. Subpart H. [40 CFR 63.169(c)]

168 Closed-vent system (hard-piping): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 once initially according to the procedures in 40 CFR 63.180(b). If an instrument reading greater than 500 ppm above background is recorded, a leak is detected. If a leak is detected, initiate repair provisions in 40 CFR 63.172(h). Subpart H. [40 CFR 63.172(f)(1)(i)]

Which Months: All Year Statistical Basis: None specified
169 Closed-vent system (hard-piping): Presence of a leak monitored by visual, audible, and/or olfactory annually. If a leak is detected, initiate repair provisions in 40 CFR 63.172(h). Subpart H. [40 CFR 63.172(f)(1)(ii)]

Which Months: All Year Statistical Basis: None specified
170 Make a first attempt at repair no later than 5 calendar days after each leak is detected, and complete repairs no later than 15 calendar days after it each leak is detected, except as provided in 40 CFR 63.172(i). Subpart H. [40 CFR 63.172(h)]

171 Closed-vent system (bypass lines): Secure the bypass line valve in the non-diverting position with a car-seal or a lock-and-key type configuration. Subpart H. [40 CFR 63.172(j)(2)]

172 Closed-vent system (bypass lines): Seal or closure mechanism monitored by visual inspection/determination monthly to ensure the valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass line. Subpart H. [40 CFR 63.172(j)(2)]

Which Months: All Year Statistical Basis: None specified
173 Closed-vent system (unsafe-to-inspect): Demonstrate that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential dangers as a consequence of complying with 40 CFR 63.172(f)(1) or (f)(2). Comply with this requirement instead of the requirements in 40 CFR 63.172(f)(1) and (f)(2). Subpart H. [40 CFR 63.172(k)(1)]

174 Closed-vent system (unsafe-to-inspect): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21, at the regulation's specified frequency. Maintain a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times, but not more frequently than annually. Comply with this requirement instead of the requirements in 40 CFR 63.172(f)(1) and (f)(2). Subpart H. [40 CFR 63.172(k)(2)]

Which Months: All Year Statistical Basis: None specified
175 Closed-vent system (difficult-to-inspect): Demonstrate that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface. Comply with this requirement instead of the requirements in 40 CFR 63.172(f)(1) and (f)(2). Subpart H. [40 CFR 63.172(l)(1)]

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- 176 Closed-vent system (difficult-to-inspect): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 once every five years. Maintain a written plan that requires inspection of the equipment at least once every five years. Comply with this requirement instead of the requirements in 40 CFR 63.172(f)(1) and (f)(2). Subpart H. [40 CFR 63.172(1)(2)]
- Which Months: All Year Statistical Basis: None specified
- 177 Ensure that the closed-vent system or control device is operating whenever organic HAP emissions are vented to the closed-vent system or control device. Subpart H. [40 CFR 63.172(m)]
- 178 Agitators in gas/vapor service or light liquid service: Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 monthly to detect leaks, as specified in 40 CFR 63.180(b). If an instrument reading of 10,000 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions in 40 CFR 63.173(c). Subpart H. [40 CFR 63.173(a)]
- Which Months: All Year Statistical Basis: None specified
- 179 Agitators in gas/vapor service or light liquid service: Presence of a leak monitored by visual inspection/determination weekly (calendar) for indications of liquids dripping from the agitator. If there are indications of liquids dripping from the agitator, a leak is detected. If a leak is detected, initiate repair provisions in 40 CFR 63.173(c). Subpart H. [40 CFR 63.173(b)]
- Which Months: All Year Statistical Basis: None specified
- 180 Agitators in gas/vapor service or light liquid service: Make a first attempt at repair no later than 5 calendar days after each leak is detected, and complete repairs no later than 15 calendar days after each leak is detected, except as provided in 40 CFR 63.171. Subpart H. [40 CFR 63.173(c)]
- 181 Agitators in gas/vapor service and light liquid service (dual mechanical seal system): Operate with the barrier fluid at a pressure that is at all times greater than the agitator stuffing box pressure; or equip with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that complies with the requirements of 40 CFR 63.172; or equip with a closed-loop system that purges the barrier fluid into a process stream. Comply with this requirement instead of the requirements in 40 CFR 63.173(a). Subpart H. [40 CFR 63.173(d)(1)]
- 182 Agitators in gas/vapor service and light liquid service (dual mechanical seal system): Ensure that the barrier fluid is not in light liquid organic HAP service. Comply with this requirement instead of the requirements in 40 CFR 63.173(a). Subpart H. [40 CFR 63.173(d)(2)]
- 183 Agitators in gas/vapor service and light liquid service (dual mechanical seal system): Equip barrier fluid system with a sensor that will detect failure of the seal system, barrier fluid system, or both. Comply with this requirement instead of the requirements in 40 CFR 63.173(a). Subpart H. [40 CFR 63.173(d)(3)]
- 184 Agitators in gas/vapor service or light liquid service (dual mechanical seal system): Presence of a leak monitored by visual inspection/determination weekly (calendar). Monitor for indications of liquids dripping from the agitator seal. If there are indications of liquid dripping from the agitator seal at the time of the weekly inspection, monitor the agitator as specified in 40 CFR 63.180(b) to determine the presence of organic HAP in the barrier fluid. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. If a leak is detected, initiate the repair provisions in 40 CFR 63.173(d)(6). Comply with this requirement instead of the requirements in 40 CFR 63.173(a). Subpart H. [40 CFR 63.173(d)(4)]
- Which Months: All Year Statistical Basis: None specified
- 185 Agitators in gas/vapor service and light liquid service (dual mechanical seal system): Determine, based on design considerations and operating experience, criteria that indicates failure of the seal system, the barrier fluid system, or both. Comply with this requirement instead of the requirements in 40 CFR 63.173(a). Subpart H. [40 CFR 63.173(d)(6)(i)]
- 186 Agitators in gas/vapor service and light liquid service (dual mechanical seal system): Make a first attempt at repair no later than 5 calendar days after each leak is detected, and complete repairs no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 63.171. Comply with this requirement instead of the requirements in 40 CFR 63.173(a). Subpart H. [40 CFR 63.173(d)(6)]

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- 187 Agitators in gas/vapor service or light liquid service (dual mechanical seal system - sensor): Equipment/operational data monitored by visual inspection/determination daily, or equip with an audible alarm unless the agitator is located within the boundary of an unmanned plant site. If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criteria established in 40 CFR 63.1.73(d)(6), a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1.73(d)(6). Comply with this requirement instead of the requirements in 40 CFR 63.1.73(a). Subpart H. [40 CFR 63.1.73(d)]
- Which Months: All Year Statistical Basis: None specified
- 188 Agitators in gas/vapor service or light liquid service (unmanned plant site): Presence of a leak monitored by visual inspection/determination at the regulation's specified frequency. Monitor each agitator as often as practicable and at least monthly. Comply with this requirement instead of the weekly visual inspection requirement of 40 CFR 63.1.73(b)(1) and (d)(4), and the daily requirements of 40 CFR 63.1.73(d)(5). Subpart H. [40 CFR 63.1.73(g)]
- Which Months: All Year Statistical Basis: None specified
- 189 Agitators in gas/vapor service or light liquid service (difficult-to-monitor): Demonstrate that the agitator cannot be monitored without elevating the monitoring personnel more than two meters above a support surface or it is not accessible at anytime in a safe manner. Comply with this requirement instead of the requirements in 40 CFR 63.1.73(a) through (d). Subpart H. [40 CFR 63.1.73(h)(1)]
- 190 Agitators in gas/vapor service or light liquid service (difficult-to-monitor): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 annually. Maintain a written plan that requires monitoring of the agitator at least once per calendar year. Comply with this requirement instead of the requirements in 40 CFR 63.1.73(a) through (d). Subpart H. [40 CFR 63.1.73(h)(3)]
- Which Months: All Year Statistical Basis: None specified
- 191 Agitators in gas/vapor service or light liquid service (unsafe-to-monitor): Demonstrate that the agitator is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 63.1.73(a) through (d). Subpart H. [40 CFR 63.1.73(j)(1)]
- 192 Agitators in gas/vapor service or light liquid service (unsafe-to-monitor): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency. Maintain a written plan that requires monitoring of the agitator as frequently as practicable during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable. Comply with this requirement instead of the requirements in 40 CFR 63.1.73(a) through (d). Subpart H. [40 CFR 63.1.73(j)(2)]
- Which Months: All Year Statistical Basis: None specified
- 193 Connectors in gas/vapor service or light liquid service: Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 once within 12 months after the compliance date, except as provided in 40 CFR 63.1.74(f) through (h). If an instrument reading of 500 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions in 40 CFR 63.1.74(d). Subpart H. [40 CFR 63.1.74(b)(1)]
- Which Months: All Year Statistical Basis: None specified
- 194 Connectors in gas/vapor service or light liquid service (0.5% or greater leaking): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 annually. Subpart H. [40 CFR 63.1.74(b)(3)(i)]
- Which Months: All Year Statistical Basis: None specified
- 195 Connectors in gas/vapor service or light liquid service (less than 0.5% leaking): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 once every two years. Subpart H. [40 CFR 63.1.74(b)(3)(ii)]
- Which Months: All Year Statistical Basis: None specified
- 196 Connectors in gas/vapor service or light liquid service (opened or otherwise had the seal broken): Presence of a leak monitored by 40 CFR 60, Appendix A, Method 21 within three months after being returned to organic HAP service or when it is reconnected. If monitoring detects a leak, repair according to the provisions of 40 CFR 63.1.74(d), as specified, except as provided in 40 CFR 63.1.74(c)(1)(ii). Subpart H. [40 CFR 63.1.74(c)(1)(ii)]
- Which Months: All Year Statistical Basis: None specified
- 197 Connectors in gas/vapor service or light liquid service (2 inches or less in nominal diameter): Comply with the requirements of 40 CFR 63.1.69. Subpart H. [40 CFR 63.1.74(c)(2)(ii)]

SPECIFIC REQUIREMENTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations

Activity Number: PER19960020

Permit Number: 2446-V0

Air - Title V Regular Permit Initial

FUG010 196Q - Fugitive Emissions

- 198 Connectors in gas/vapor service or light liquid service (2 inches or less in nominal diameter): Organic HAP monitored by technically sound method within three months after being returned to organic HAP service after having been opened or otherwise had the seal broken. If monitoring detects a leak, implement repair provisions in 40 CFR 63.174(d). Subpart H. [40 CFR 63.174(c)(2)(ii)]
- Which Months: All Year Statistical Basis: None specified
- 199 Connectors in gas/vapor service or light liquid service: Make a first attempt at repair no later than 5 calendar days after each leak is detected, and complete repairs no later than 15 calendar days after it each leak is detected, except as provided in 40 CFR 63.171 and 63.174(g). Subpart H. [40 CFR 63.174(d)]
- 200 Connectors in gas/vapor service or light liquid service (unsafe-to-monitor): Demonstrate that the connector is unsafe to monitor because personnel would be exposed to an immediate danger as a result of complying with 40 CFR 63.174(a) through (c). Comply with this requirement instead of the requirements in 40 CFR 63.174(a). Subpart H. [40 CFR 63.174(f)(1)]
- 201 Connectors in gas/vapor service or light liquid service (unsafe-to-monitor): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency. Maintain a written plan that requires monitoring of connectors as frequently as practicable during safe to monitor times, but not more frequently than the periodic schedule otherwise applicable. Comply with this requirement instead of the requirements in 40 CFR 63.174(a). Subpart H. [40 CFR 63.174(f)(2)]
- Which Months: All Year Statistical Basis: None specified
- 202 Connectors in gas/vapor service or light liquid service (unsafe-to-repair): Demonstrate that repair personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 63.174(d). Comply with this requirement instead of the requirements in 40 CFR 63.174(a), (d), and (e). Subpart H. [40 CFR 63.174(g)]
- 203 Connectors in gas/vapor service or light liquid service (inaccessible, ceramic, or ceramic-lined): Make a first attempt at repair within 5 days after leak is detected by visual, audible, olfactory or other means, and complete repairs no later than 15 calendar days after leak is detected, except as provided in 40 CFR 63.171 and 63.174(g). Comply with this requirement instead of the monitoring requirements of 40 CFR 63.174(a) and (c) and from the recordkeeping and reporting requirements of 40 CFR 63.181 and 63.182. Subpart H. [40 CFR 63.174(h)(2)]
- 204 Connectors in gas/vapor service or light liquid service: Calculate percent leaking connectors as specified in 40 CFR 63.174(i)(1) and (i)(2). Subpart H. [40 CFR 63.174(i)]
- 205 Comply with the test methods and procedures requirements provided in 40 CFR 63.180. Subpart H. [40 CFR 63.180]
- 206 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain records as specified in 40 CFR 63.181(a) through (k). Subpart H. [40 CFR 63.181]
- 207 Submit Initial Notification: Due within 120 days after the date of promulgation of the subpart that references 40 CFR 63 Subpart H. Include the information specified in 40 CFR 63.182(b)(1). Subpart H. [40 CFR 63.182(b)]
- 208 Submit Notification of Compliance Status: Due within 90 days of the compliance dates specified in the 40 CFR 63 subpart that references 40 CFR 63 Subpart H. Include the information specified in 40 CFR 63.182(c)(1) through (c)(3). Subpart H. [40 CFR 63.182(c)]
- 209 Submit Periodic Reports: Due semiannually starting 6 months after the Notification of Compliance Status, as required in 40 CFR 63.182(c). Include the information specified in 40 CFR 63.182(d)(2) through (d)(4). Subpart H. [40 CFR 63.182(d)]
- 210 Comply with 40 CFR 63 Subpart H (most stringent program) by implementing the Louisiana Consolidated Fugitive Emission Program Guidelines. Compliance is achieved through compliance with 40 CFR 63 Subpart H (as referenced by 40 CFR 63 Subpart PPP). [40 CFR 63 Subpart H]
- 211 Comply with 40 CFR 63 Subpart PPP by implementing the Louisiana Consolidated Fugitive Emission Program Guidelines. Compliance is achieved through compliance with 40 CFR 63 Subpart H (as referenced by 40 CFR 63 Subpart PPP). [40 CFR 63 Subpart PPP]

GRP096 Unit 8 (EXP)

- 212 Emissions of smoke which pass onto or across a public road and create a traffic hazard by impairment of visibility as defined in LAC 33:III.1.11 or intensify an existing traffic hazard condition are prohibited. [LAC 33:III.1.103]

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- 213 Emissions of particulate matter which pass onto or across a public road and create a traffic hazard by impairment of visibility or intensify an existing traffic hazard condition are prohibited. [LAC 33:III.1.303.B]
- 214 Maintain best practical housekeeping and maintenance practices at the highest possible standards to reduce the quantity of organic compounds emissions. Good housekeeping shall include, but not be limited to, the practices listed in LAC 33:III.2113.A.1-5. [LAC 33:III.2113.A]
- 215 Failure to pay the prescribed application fee or annual fee as provided herein, within 90 days after the due date, will constitute a violation of these regulations and shall subject the person to applicable enforcement actions under the Louisiana Environmental Quality Act including, but not limited to, revocation or suspension of the applicable permit, license, registration, or variance. [LAC 33:III.21.9]
- 216 Maintain best practical housekeeping and maintenance practices at the highest possible standards to control emissions of highly reactive volatile organic compounds (HRVOC), which include 1,3-Butadiene, Butene, cis-2-Butene, trans-2-Butene, Ethylene, Propylene, Toluene, Xylene, m/p-Xylene, o-Xylene. [LAC 33:III.501.C.6]
- 217 Maintain, to the extent practicable, a leak-free facility taking such steps as are necessary and reasonable to prevent leaks and to expeditiously repair leaks that occur. Update the written plan presently required by LAC 33:III.2113.A.4 within 30 days of receipt of this permit to incorporate these general duty obligations into the housekeeping procedures. The plan shall then be considered a means of emission control subject to the required use and maintenance provisions of LAC 33:III.905. Failure to develop, use, and diligently maintain the plan shall be a violation of this permit. [LAC 33:III.501.C.6]
- 218 Carbon monoxide <= 30.40 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
- 219 Nitrogen oxides <= 5.59 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
- 220 Particulate matter (1.0 microns or less) <= 1.61 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
- 221 Sulfur dioxide <= 0.05 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
- 222 VOC, Total <= 25.38 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
- 223 Acetaldehyde <= 0.06 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
- 224 1,4-Dioxane < 0.01 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
- 225 Ethylene glycol <= 0.09 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
- 226 Ethylene oxide <= 1.12 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
- 227 Formaldehyde <= 0.02 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
- 228 Glycol ethers (Table 51.3) <= 4.03 tons/yr. [LAC 33:III.501.C.6]
Which Months: All Year Statistical Basis: Annual maximum
- 229 Do not construct or modify any stationary source subject to any standard set forth in LAC 33:III. Chapter 51. Subchapter A without first obtaining written authorization from DEQ in accordance with LAC 33:III. Chapter 51. Subchapter A, after the effective date of the standard. [LAC 33:III.5105.A.1]
- 230 Do not cause a violation of any ambient air standard listed in LAC 33:III. Table 51.2, unless operating in accordance with LAC 33:III.5109. [LAC 33:III.5105.A.2]

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- 231 Do not build, erect, install, or use any article, machine, equipment, process, or method, the use of which conceals an emission that would otherwise constitute a violation of an applicable standard. [LAC 33:III.51.05.A.3]
- 232 Do not fail to keep records, notify, report or revise reports as required under LAC 33:III.Chapter 51.Subchapter A. [LAC 33:III.5105.A.4]
- 233 Submit Annual Emissions Report (TEDI): Due annually, by the 1st of July, to the Office of Environmental Assessment, Environmental Evaluation Division in a form specified by the department. Identify the quantity of emissions in the previous calendar year for any toxic air pollutant listed in Table 51.1 or Table 51.3. [LAC 33:III.51.07.A.2]
- 234 Include a certification statement with initial and subsequent annual emission reports and revisions to any emission report to attest that the information contained in the emission report is true, accurate, and complete, and signed by a responsible official, as defined in LAC 33:III.502. Include the full name of the responsible official, title, signature, date of signature and phone number of the responsible official. The certification statement shall read: "I certify, under penalty of perjury, that the emissions data provided is accurate to the best of my knowledge, information, and belief, and I understand that submitting false or misleading information will expose me to prosecution under state regulations" [LAC 33:III.51.07.A.3]
- 235 Submit notification: Due to the Department of Public Safety 24-hour Louisiana Emergency Hazardous Materials Hotline at (225) 925-6595 immediately, but no later than 1 hour, after any discharge of a toxic air pollutant into the atmosphere which results or threatens to result in an emergency condition (a condition which could reasonably be expected to endanger the health and safety of the public, cause significant adverse impact to the land, water or air environment, or cause severe damage to property). [LAC 33:III.51.07.B.1]
- 236 Submit notification: Due to the Office of Environmental Compliance, except as provided in LAC 33:III.51.07.B.6, no later than 24 hours after the beginning of any unauthorized discharge into the atmosphere of a toxic air pollutant as a result of bypassing an emission control device, when the emission control bypass was not the result of an upset, and the quantity of the unauthorized bypass is greater than or equal to the lower of the Minimum Emission Rate (MER) in LAC 33:III:Chapter 51 .Table 51.1 or a reportable quantity (RQ) in LAC 33:1.3931, or the quantity of the unauthorized bypass is greater than one pound and there is no MER or RQ for the substance in question. Submit notification in the manner provided in LAC 33:1.3923. [LAC 33:III.5107.B.2]
- 237 Submit notification: Due to the Office of Environmental Compliance immediately, but in no case later than 24 hours after any unauthorized discharge of a toxic air pollutant into the atmosphere that does not cause an emergency condition, the rate or quantity of which is in excess of that allowed by permit, compliance schedule, or variance, or for upset events that exceed the reportable quantity in LAC 33:1.3931 , except as provided in LAC 33:III.5107.B.6. Submit notification in the manner provided in LAC 33:1.3923. [LAC 33:III.51.07.B.3]
- 238 Submit written report: Due within seven calendar days of learning of any such discharge or equipment bypass as referred to in LAC 33:III.5107.B.1 through 3. Submit report to the Office of Environmental Compliance by certified mail. Include the information specified in LAC 33:III.5107.B.4.a.i through viii. [LAC 33:III.51.07.B.4]
- 239 Report all discharges to the atmosphere of a toxic air pollutant from a safety relief device, a sudden equipment failure, or a bypass of an emission control device, regardless of quantity, in the annual emissions report and where otherwise specified. Include the identity of the source, the date and time of the discharge, and the approximate total loss during the discharge. [LAC 33:III.5107.B.5]
- 240 Achieve compliance with ambient air standards unless it can be demonstrated to the satisfaction of DEQ that compliance with an ambient air standard would be economically infeasible; that emissions could not reasonably be expected to pose a threat to public health or the environment; and that emissions would be controlled to a level that is Maximum Achievable Control Technology. [LAC 33:III.5109.B.3]
- 241 Determine the status of compliance, beyond the property line, with applicable ambient air standards listed in LAC 33:III.5112.Table 51.2. [LAC 33:III.5109.B]
- 242 Develop a standard operating procedure (SOP) within 120 days after achieving or demonstrating compliance with the standards specified in LAC 33:III:Chapter 51. Detail in the SOP all operating procedures or parameters established to ensure that compliance with the applicable standards is maintained and address operating procedures for any monitoring system in place, specifying procedures to ensure compliance with LAC 33:III.5113.C.5. Make a written copy of the SOP available on site or at an alternate approved location for inspection by DEQ. Provide a copy of the SOP within 30 days upon request by the department. [LAC 33:III.5109.C]
- 243 Obtain a Louisiana Air Permit in accordance with LAC 33:III.5111.B and C and in accordance with LAC 33:III.1701 , before commencement of the construction of any new source. [LAC 33:III.5111.A.1]

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- 244 Obtain a permit modification in accordance with LAC 33:III.5111.B and C before commencement of any modification not specified in a compliance plan submitted under LAC 33:III.5109.D, if the modification will result in an increase in emissions of any toxic air pollutant or will create a new point source. [LAC 33:III.5111.A.2.a]
- 245 Obtain written authorization from DEQ before commencement of any modification specified in a compliance plan submitted pursuant to LAC 33:III.5109. [LAC 33:III.5111.A.3]
- 246 Do not commence construction or modification of any major source without first obtaining written authorization from DEQ, as specified. [LAC 33:III.5111.A]
- 247 Submit notification in writing. Due to the Office of Environmental Compliance, Surveillance Division not more than 60 days nor less than 30 days prior to initial start-up.
Submit the anticipated date of the initial start-up. [LAC 33:III.5113.A.1]
- 248 Submit notification in writing. Due to the Office of Environmental Compliance, Surveillance Division within 10 working days after the actual date of initial start-up of the source. Submit the actual date of initial start-up of the source. [LAC 33:III.5113.A.2]
- 249 Ensure that all testing done to determine the emission of toxic air pollutants, upon request by the department, is conducted by qualified personnel. [LAC 33:III.5113.B.1]
- 250 Provide necessary sampling and testing facilities, exclusive of instruments and sensing devices, as needed to properly determine the emission of toxic air pollutants, upon request of the department. [LAC 33:III.5113.B.3]
- 251 Provide emission testing facilities as specified in LAC 33:III.5113.B.4. a through c. [LAC 33:III.5113.B.4]
- 252 Analyze samples and determine emissions within 30 days after each emission test has been completed. [LAC 33:III.5113.B.5]
- 253 Submit certified letter. Due to the Office of Environmental Assessment, Environmental Technology Division before the close of business on the 45th day following the completion of the emission test. Report the determinations of the emission test. [LAC 33:III.5113.B.5]
- 254 Equipment/operational data recordkeeping by electronic or hard copy upon each occurrence of emissions testing. Retain records of emission test results and other data needed to determine emissions. Retained records at the source, or at an alternate location approved by DEQ for a minimum of two years, and make available upon request for inspection by DEQ. [LAC 33:III.5113.B.6]
- 255 Submit notification: Due to the Office of Environmental Assessment, Environmental Technology Division at least 30 days before the emission test. Submit notification of emission test to allow DEQ the opportunity to have an observer present during the test. [LAC 33:III.5113.B.7]
- 256 Maintain and operate each monitoring system in a manner consistent with good air pollution control practices for minimizing emissions. Repair or adjust any breakdown or malfunction of the monitoring system as soon as practicable after its occurrence. [LAC 33:III.5113.C.1]
- 257 Conduct performance evaluation of the monitoring system when required at any other time requested by DEQ. [LAC 33:III.5113.C.2]
- 258 Submit performance evaluation report. Due to the Office of Environmental Assessment, Environmental Technology Division within 60 days of the monitoring system performance evaluation. [LAC 33:III.5113.C.2]
- 259 Submit notification in writing. Due to the Office of Environmental Assessment, Environmental Technology Division at least 30 days before a performance evaluation of the monitoring system is to begin. [LAC 33:III.5113.C.2]
- 260 Install a monitoring system on each effluent or on the combined effluent, when monitoring is required and the effluent from a single source, or from two or more sources subject to the same emission standards, are combined before being released to the atmosphere. If two or more sources are not subject to the same emission standards, install a separate monitoring system on each effluent, unless otherwise specified. If the applicable standard is a mass emission standard and the effluent from one source is released to the atmosphere through more than one point, install a monitoring system at each emission point unless DEQ approves the installation of fewer systems. [LAC 33:III.5113.C.3]
- 261 Evaluate the performance of continuous monitoring systems, upon request by DEQ, in accordance with the requirements and procedures contained in the applicable performance specification of 40 CFR Part 60, appendix B. [LAC 33:III.5113.C.5.a]
- 262 Submit report. Due to DEQ within 60 days of the performance evaluation of the CMS, if requested. Furnish DEQ with two or more copies of a written report of the test results within 60 days. [LAC 33:III.5113.C.5.a]
- 263 Install all continuous monitoring systems or monitoring devices to make representative measurements under variable process or operating parameters, if required to install a CMS. [LAC 33:III.5113.C.5.d]
- 264 Collect and reduce all data as specified in LAC 33:III.5113.C.5.e.i and ii, if required to install a CMS. [LAC 33:III.5113.C.5.e]

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- 265 Submit plan. Due to the Office of Environmental Assessment, Environmental Technology Division within 90 days after DEQ requests either the initial plan or an updated plan, if required by DEQ to install a continuous monitoring system. Submit for approval a plan describing the affected sources and the methods for ensuring compliance with the continuous monitoring system. [LAC 33:III.5113.C.5]
- 266 Maintain records of monitoring data, monitoring system calibration checks, and the occurrence and duration of any period during which the monitoring system is malfunctioning or inoperative. Maintain these records at the source, or at an alternative location approved by DEQ, for a minimum of three years and make available, upon request, for inspection by DEQ. [LAC 33:III.5113.C.7]
- 267 Activate the preplanned abatement strategy listed in LAC 33:III.5611.Table 5 when the administrative authority declares an Air Pollution Alert. [LAC 33:III.5609.A.1.b]
- 268 Activate the preplanned strategy listed in LAC 33:III.5611.Table 6 when the administrative authority declares an Air Pollution Warning. [LAC 33:III.5609.A.2.b]
- 269 Activate the preplanned abatement strategy listed in LAC 33:III.5611.Table 7 when the administrative authority declares an Air Pollution Emergency. [LAC 33:III.5609.A.3.b]
- 270 Prepare standby plans for the reduction of emissions during periods of Air Pollution Alert, Air Pollution Warning and Air Pollution Emergency. Design standby plans to reduce or eliminate emissions in accordance with the objectives as set forth in LAC 33:III.5611.Tables 5, 6, and 7. [LAC 33:III.5609.A]
- 271 Comply with the provisions in 40 CFR 68, except as specified in LAC 33:III.5901. [LAC 33:III.5901.A]
- 272 Identify hazards that may result from accidental releases of the substances listed in 40 CFR 68.130, Table 59.0 of LAC 33:III.5907, or Table 59.1 of LAC 33:III.5913 using appropriate hazard assessment techniques, design and maintain a safe facility, and minimize the off-site consequences of accidental releases of such substances that do occur. [LAC 33:III.5907]
- 273 Submit registration. Due January 31, 1998, or within 60 days after the source becomes subject to LAC 33:III.Chapter 59, whichever is later. Include the information listed in LAC 33:III.5911.B, and submit to the Department of Environmental Quality, Office of Environmental Compliance, Surveillance Division. [LAC 33:III.5911.A]
- 274 Submit amended registration. Due to the Department of Environmental Quality, Office of Environmental Compliance, Surveillance Division within 60 days after the information in the submitted registration is no longer accurate. [LAC 33:III.5911.C]
- 275 Submit Emission Inventory (EI)/Annual Emissions Statement. Due annually, by the 31st of March for the period January 1 to December 31 of the previous year unless otherwise directed. Submit emission inventory data in the format specified by the Office of Environmental Assessment, Environmental Evaluation Division. Include all data applicable to the emissions source(s), as specified in LAC 33:III.91.9.D.
- 276 Owner or operator shall comply with monitoring, recordkeeping, and reporting requirements for equipment leaks, process vents, storage vessels, and process wastewater as specified in the appropriate references of 40 CFR 63 Subpart PPP. [40 CFR 63.1420]
- 277 Reporting. Submit Periodic Reports as specified in paragraphs 63.1439(e)(6)(i)-(viii). [40 CFR 63.1439(e)(6)]
- 278 Comply with all applicable provisions of 40 CFR 63 Subpart PPP. [40 CFR 63]
- 279 Submit Title V permit application for renewal: Due 180 calendar days before permit expiration date. [40 CFR 70.5(a)(1)(iii)]
- 280 Submit Title V monitoring results report: Due semiannually, by March 31st and September 30th for the preceding periods encompassing July through December and January through June, respectively. Submit reports to the Office of Environmental Compliance, Surveillance Division. Certify reports by a responsible company official. Clearly identify all instances of deviations from permitted monitoring requirements. For previously reported deviations, in lieu of attaching the individual deviation reports, clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. [40 CFR 70.6(a)(3)(iii)(A)]
- 281 Submit Title V excess emissions report: Due quarterly, by June 30, September 30, December 31, March 31. Submit reports of all permit deviations to the Office of Environmental Compliance, Surveillance Division. Certify all reports by a responsible official in accordance with 40 CFR 70.5(d). The reports submitted on March 31 and September 30 may be consolidated with the semi-annual reports required by 40 CFR 70.6(a)(3)(iii)(A) as long as the report clearly indicates this and all required information is included and clearly delineated in the consolidated report [40 CFR 70.6(a)(3)(iii)(B)]
- 282 Submit Title V compliance certification: Due annually, by the 31st of March. Submit to the Office of Environmental Compliance, Surveillance Division. [40 CFR 70.6(c)(5)(iv)]

EMISSION RATES FOR CRITERIA POLLUTANTS

AIID: 2083 - Union Carbide Corp - St Charles Operations

Activity Number: PER19960020

Permit Number: 2446-V0

Air - Title V Regular Permit Initial

All phases

Subject Item	PM ₁₀		SO ₂		NOx		CO		VOC	
	Avg lb/hr	Max lb/hr	Avg lb/hr	Max lb/hr	Avg lb/hr	Max lb/hr	Avg lb/hr	Max lb/hr	Avg lb/hr	Max lb/hr
EQT 478 3900	0.05	0.12	0.20	0.01	0.05	0.02	1.3	3.8	5.59	6.9
EQT 483 3907										
EQT 484 3908										
EQT 485 3910										
EQT 486 3911										
EQT 487 3912										
EQT 488 3913										
EQT 489 3914										
EQT 490 3915										
EQT 491 3916										
EQT 492 3917										
EQT 493 3918										
EQT 494 3920a										
EQT 495 3920b										
EQT 496 3920c										
EQT 497 3920d										
EQT 498 3920e										
EQT 499 3920f										

EMISSION RATES FOR CRITERIA POLLUTANTS

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Air - Title V Regular Permit Initial

All phases

Subject Item	PM ₁₀ Avg lb/hr	Max lb/hr	Tons/Year	SO ₂ Avg lb/hr	Max lb/hr	Tons/Year	NOx Avg lb/hr	Max lb/hr	Tons/Year	CO Avg lb/hr	Max lb/hr	Tons/Year	VOC Avg lb/hr	Max lb/hr	Tons/Year
EQT 500 3920g															5.3
EQT 501 3920h															5.3
EQT 502 3920i															5.3
EQT 503 3920j															5.3
EQT 504 3921															5.3
EQT 505 3922															0.09
EQT 506 3923															0.01
EQT 507 3924															4.56
EQT 508 3925															0.94
EQT 509 3926	0.36														
EQT 510 3927	0.36														
EQT 511 3928	0.36														
EQT 512 3929	0.36														
EQT 513 3930	< 0.01	0.34	0.02												0.01
EQT 514 3931															0.01
EQT 515 3932															0.01
EQT 516 3933															0.01
EQT 517 3934															0.01

EMISSION RATES FOR CRITERIA POLLUTANTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations

Activity Number: PER19960020

Permit Number: 2446-V0

Air - Title V Regular Permit Initial

All phases

Subject Item	PM ₁₀			SO ₂			NOx			CO			VOC		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
EQT 518 3935	< 0.01	0.02	< 0.01	0.01	-	-	-	-	-	-	-	-	< 0.01	2.0 <	0.01
EQT 519 3936	0.05	0.20	0.14	-	-	-	-	-	-	-	-	-	< 0.01	0.01 <	0.01
EQT 520 3938	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EQT 521 3940	-	-	-	-	-	-	-	-	-	-	-	-	< 0.01	0.01 <	0.01
EQT 522 3941	-	-	-	-	-	-	-	-	-	-	-	-	< 0.01	0.01 <	0.01
EQT 523 3942	-	-	-	-	-	-	-	-	-	-	-	-	< 0.01	0.01 <	0.01
FUG 010 196Q	-	-	-	-	-	-	-	-	-	-	-	-	3.4	3.4	14.75
GRP 097 3920 CAP	-	-	-	-	-	-	-	-	-	-	-	-	0.29	0.29	0.29
GRP 098 Bin Vent Cap	-	0.27	-	1.20	-	-	-	-	-	-	-	-	-	-	-

Note: Emission rates in bold are from alternate scenarios and are not included in permitted totals

Permit Phase Totals:

PM10: 1.61 tons/yr

SO2: 0.05 tons/yr

NOx 5.59 tons/yr

CO: 30.40 tons/yr

VOC: 25.38 tons/yr

Emission rates Notes:

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations

Activity Number: PER19960020

Permit Number: 2446-V0

Air - Title V Regular Permit Initial

All phases

Subject Item	1,4-Dioxane			Acetaldehyde			Ethylene glycol			Ethylene oxide			Formaldehyde		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
EQT 478	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.02	<
3900	<	0.01	<	0.01	<	0.01	<	0.02	<	0.01	<	0.01	<	0.01	<
EQT 483	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<
3907	<	0.01	<	0.01	<	0.01	<	0.07	<	0.01	<	0.01	<	0.01	<
EQT 484	<	0.01	<	0.01	<	0.01	<	0.08	<	0.01	<	0.01	<	0.01	<
3908	<	0.01	<	0.01	<	0.01	<	0.07	<	0.01	<	0.01	<	0.01	<
EQT 485	<	0.01	<	0.01	<	0.01	<	0.07	<	0.01	<	0.01	<	0.01	<
3910	<	0.01	<	0.01	<	0.01	<	0.08	<	0.01	<	0.01	<	0.01	<
EQT 486	<	0.01	<	0.01	<	0.01	<	0.14	<	0.01	<	0.15	<	0.01	<
3911	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<
EQT 487	<	0.01	<	0.01	<	0.01	<	0.02	<	0.01	<	0.02	<	0.01	<
3912	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<
EQT 488	<	0.01	<	0.01	<	0.01	<	0.02	<	0.01	<	0.02	<	0.01	<
3913	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<
EQT 489	<	0.01	<	0.01	<	0.01	<	0.02	<	0.01	<	0.02	<	0.01	<
3914	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<
EQT 490	<	0.01	<	0.01	<	0.01	<	0.08	<	0.01	<	0.08	<	0.01	<
3915	<	0.01	<	0.01	<	0.01	<	0.08	<	0.01	<	0.08	<	0.01	<
EQT 491	<	0.01	<	0.01	<	0.01	<	0.08	<	0.01	<	0.08	<	0.01	<
3916	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<
EQT 492	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.08	<	0.01	<
3917	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<
EQT 504	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.004	<	0.01	<
3921	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<
EQT 505	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.09	<	0.01	<
3922	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<
EQT 506	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<
3923	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<
EQT 507	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<
3924	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<
EQT 520	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<
3938	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<
EQT 521	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<
3940	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<
EQT 522	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<
3941	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations

Activity Number: PER19960020

Permit Number: 2446-V0

Air - Title V Regular Permit Initial

All phases

Glycol ethers (Table 51.3)

Subject Item	Avg lb/hr	Max lb/hr	Tons/Year
EQT 478 3900	< 0.01	0.36	0.04
EQT 483 3907			
EQT 484 3908			
EQT 485 3910	0.7	27.1	3.18
EQT 486 3911			
EQT 487 3912			
EQT 488 3913			
EQT 489 3914	0.1	4.35	0.47
EQT 490 3915			
EQT 491 3916			
EQT 492 3917			
EQT 504 3921	< 0.01	< 0.01	< 0.01
EQT 505 3922	0.01	2.3	< 0.01
EQT 506 3923			
EQT 507 3924	0.08	0.08	0.33
EQT 520 3938			
EQT 521 3940			
EQT 522 3941			

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

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Air - Title V Regular Permit Initial

All phases

1,4-Dioxane				Acetaldehyde				Ethylene glycol				Ethylene oxide				Formaldehyde			
Subject Item	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	
EQT 523							<	0.01	< 0.01	<	0.01	< 0.01	<	0.01	< 0.01	<	0.01	< 0.01	
3942																			
FUG 010																			
196Q																			

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations

Activity Number: PER19960020

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Air - Title V Regular Permit Initial

All phases

Glycol ethers (Table 51.3)			
Subject Item	Avg lb/hr	Max lb/hr	Tons/Year
EQT 523 3942			
FUG 010 196Q			

Note: Emission rates in bold are from alternate scenarios and are not included in permitted totals

Permit Parameter Totals:

1,4-Dioxane: <0.01 tons/yr

Acetaldehyde: 0.06 tons/yr

Ethylene glycol: 0.09 tons/yr

Ethylene oxide: 1.12 tons/yr

Formaldehyde: 0.02 tons/yr

Glycol ethers (Table 51.3): 4.03 tons/yr

Emission Rates Notes: